Testing the Effectiveness of Advertising Strategies for Established Brands: An Empirical Investigation into and a Technique for Measuring the Response of Established Brands' Sales to Changes in Advertising Weight and Copy Using Continuous Panel Records

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Acknowledgements and Declaration

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In spite of the significant contributions of these people, any remaining mistakes are my responsibility.

Declaration

The material contained in this dissertation has not been previously presented.

"The trick, Fletcher, is that we are trying to overcome our limitations in order, patiently. We don't tackle flying through rock until a little later in the program. [So,] don't believe what your eyes are telling you. All they show is limitation. Look with your understanding, find out what you already know, and you'll see the way to fly."

"Let's begin with Level Flight."

Richard D. Bach.
Jonathan Livingston Seagull.

Summary

Managing the advertising function for established brands requires an understanding of the nature of the advertising-sales relationship. Historically, both experimental and non-experimental approaches have been used to investigate this relationship, but the impressive amount of literature in this area seems to have identified only a number of broad generalizations. In part, this is due to the inadequacies of the different methodologies and data sources that have been used, which make difficult a comparison of the reported studies for the purpose of establishing guidelines for strategic advertising management. Continuous panel-based experimental research seems to offer greater potential for providing further insights into the nature of the advertising-sales relationship.

The research first investigates the appropriateness and sensitivity of a number of models in identifying and quantifying the effect of changes in advertising strategy on sales, using The Test Marketing Group's (TMG) consumer diary and scanner panel data. It is shown that the ability to identify an advertising effect, referred to as the system's sensitivity, is significantly influenced by a number of factors, and that it can be predicted from the number of purchase transactions of the test brand.

By using one specific model, thirty-five advertising strategy tests are analyzed at the aggregate, panel level, in order to estimate the probability of causing an advertising effect on all panelists, and to identify factors that influence the effect. Application of this methodology represents the first consistent analysis of a collection of historical data with the objective of developing a knowledge base regarding advertising strategy making and testing. It is found the probability of causing an advertising effect does not differ between copy and weight tests, but that a change in copy carries a significant risk of causing a negative effect. Increases in weight are particularly effective in causing a positive effect for small share brands. Among the tests that are analyzed there is a 37.1% probability of observing an advertising effect at the panel level, which is lower than the probability observed in the literature.

Subsequent analysis of the same tests examines the effect of a change in advertising strategy at the disaggregate level, that is, on certain segments of panelists. The results of this analysis show that significant advertising effects are observed more often, thereby increasing the probability of observing an advertising effect to 60%.

Thus, by applying one methodology consistently across a set of panel-based advertising strategy tests, it is possible to identify a number of empirical norms that can aid managers in determining effective advertising strategies for their established brands. This so far has been difficult to derive from reported advertising studies. It is also suggested that further insights into the advertising-sales relationship can be obtained by increasing TMG's ability to specify advertising exposure. An experimental data collection system developed and tested on the basis of this further research is presented and evaluated.

Introduction

The primary objective of the dissertation is to identify and quantify relationships between changes in advertising weight or copy and consumer behavior by developing and applying an empirically tested methodology to a number of The Test Marketing Group's (TMG) historical tests.

This dissertation is concerned with the use of continuous consumer purchasing panels, both diary and scanner, for the purpose of testing marketing variables, focussing in particular on their use by TMG in measuring responses to changes in television advertising strategy. TMG's panels are continuous and allow the experimenter to monitor over time the behavior of the same group of people in order to identify changes due to a treatment, such as an advertising strategy change. In diary panels, panel members report on their daily purchases by filling out a paper diary, whereas panel members belonging to a scanner panel present an identification card at the time of purchase. The research includes only advertising weight and copy tests for established, national brands, and conclusions resulting from the developed methodology are applicable only to such tests, not to new product tests.

TMG's continuous consumer purchasing panels comprise members who report on their purchase behavior consistently; such panels are referred to as static. In drawing a static panel, panel members who report inconsistently are eliminated, since the objective is to measure changes in behavior of the same group of panel members over time. During tests, panel members are divided into a test and a control panel. In weight tests, members of the test panel are exposed to an increased amount of television advertising whereas in copy tests a different copy of the commercial is administered. (See Appendix II for a description of TMG's operations.)

The hypotheses of the research are concerned with (a) the method of analyzing findings from matched panels to which a treatment has been administered, and (b) the expected response to these treatments in a variety of consumer product categories. It is argued that this specific methodology needs to be applied in order to identify and estimate accurately the advertising effect.

TMG has been test marketing products and marketing programs since 1968. The split cable TV concept was pioneered by TMG (then known as AdTel) in Charleston, West Virginia, and since then TMG has expanded to six more markets: Quad Cities, IL.; Bakersfield, CA.; Peoria, IL.; Portland, ME.; Evansville, IN. and Orlando, FL. The first three, along with Charleston, are diary-based markets; the last three, more recently developed, are scanner-based. In 1985 it was decided to discontinue the Peoria test market and open another scanner market in Boise, Idaho. Eventually, all diary markets will be changed into or replaced by scanner markets.

In 1972 AdTel was acquired by Booz-Allen and Hamilton, Inc. and in 1979 was sold to Burke Marketing Services, Inc., the largest privately owned custom research company in the U.S.A. In 1986, Burke Marketing Services, Inc. was sold to SAMI, Inc., a subsidiary of Time, Inc. Since the acquisition of AdTel and other companies, Burke has offered a wide range of services: custom survey research (Burke Marketing Research), controlled store testing (Market Audits), test marketing (AdTel), copy testing ("Day After Recall" and SELECTOR), and new product forecasting (BASES). In January 1983, AdTel and Market Audits were combined into one unit named The Test Marketing Group, Inc. To date, more than two-thirds of the leading national packaged goods advertisers have used TMG's services.

Over the previous fifteen years, TMG (AdTel) has conducted more than three hundred advertising weight tests and two hundred copy tests using their split cable and continuous panel testing facilities. During the past five years the majority of tests have been copy tests, possibly indicating an emphasis on creativity as opposed to weight. Together, advertising weight and copy testing represent approximately 65% of TMG's total number of projects, with the remainder going to new product tests.

During the previous five years, the marketing research industry in the USA, in particular the test marketing and proprietary model services segments, have grown significantly. Burke estimated that the total industry has grown from $42 million in 1978 to $120 million in 1983. During that time period test marketing grew from $14 million to $55 million and proprietary model services, such as BASES (Burke Marketing Services, Inc.) and ASSESSOR (Information Resources, Inc.) grew from $4 million to $22 million.

Chapter 1

An Overview of This Research, and a Summary of Its Objectives, Findings, and Contributions.

1.1. Objectives and Hypotheses.

This research was conducted in order to fulfill three interrelated objectives with respect to television advertising strategies for established brands.

The achievement of one of these objectives serves as a basis for the achievement of the other two. This initial objective is to develop an improved methodology for analyzing experimental data gathered by The Test Marketing Group, Inc. (TMG), a leading U.S. research firm. The TMG system permits comparison to be made of alternative advertising strategies by matching consumer purchase panels as control and test subjects. It will be argued that this improved methodology must be applied to TMG data in order to identify and quantify accurately consumer response during such experiments. It will also be argued that the improved methodology provides researchers with a standardized analytical approach to TMG data.

An accurate and standardized analytical methodology allows a sample of TMG test results to be compared and then generalized in order to achieve the second and third objectives of this research. The second objective is to establish a set of empirical norms as guidelines for devising and testing television advertising strategies for established brands. The third objective is to provide TMG with direction for further enhancement of its data and its system design.

In pursuing these objectives, two sets of research hypotheses are postulated and tested. Chief among the questions addressed by these hypotheses are:

Sensitivity:

- Can TMG system sensitivity be measured and predicted?

Empirical Norms:

- Is the likelihood of observing an advertising effect different for copy and weight tests?
- What is the likelihood of a copy or weight strategy affecting:
  - the amount consumers buy?
  - consumers' frequency of purchase?
  - the degree to which consumers switch brands?

Table 1.5. at the end of this chapter defines the key terms used in this chapter.

1.2. Summary of Contributions and Findings.

1.2.1. Sensitivity.

The Test Marketing Group, Inc., a subsidiary of Burke Marketing Services, Inc., is one of the two leading test marketing companies in the U.S., the other being Information Resources, Inc. It has been estimated that these two firms accounted for 50% of the recent growth in test marketing, which itself has been estimated at 400% between 1970 and 1985.

While the advantages of panel-based experimental systems are considerable, insufficient sophistication has been shown in the designing of tests and the analysis and application of test results.

The reliability and usefulness of the findings have fallen short of the expectations of marketing management, especially given the expenses, risks, and difficulties associated with experiments.

The initial contribution of the dissertation is the development of an improved, empirically tested methodology for analyzing TMG and similar panel data. The primary benefits of this methodology are:

- increased reliability in securing accurate measurement of the advertising-sales relationship;
- increased sensitivity that may provide investigators with insights into underlying market place dynamics that may be otherwise unobtainable;
- capability of being applied as a flexible, standardized approach, thus permitting
  - savings in analytical time and costs, and
  - comparison of test results as a means of developing generalized guidelines for advertising strategy decision making and for further enhancement of TMG's data and system design.

In order to develop this methodology, the methodology currently used by TMG, which aggregates the data at the panel (aggregate) level, was empirically tested for sensitivity, that is, ability to detect an effect of advertising on sales. Two alternative methodologies were then developed that entail aggregation of data at the household level or store level. Key hypotheses regarding TMG system sensitivity were postulated and tested with the following results:

1.- TMG's system sensitivity can be estimated using either the individual household model or the store model.

2.- TMG's system sensitivity is different for each product/category.

3.- The probability of observing an advertising effect is independent of the choice of either a scanner or diary city.

4.- TMG's system sensitivity can be predicted from the number of transactions during a given period of time.

The following conclusions were also drawn about the three methodologies:

1.- Among the three methodologies, the panel level model has a fundamental statistical problem: There is a higher probability of erroneously identifying the presence of an effect (type 1 error).

2.- In order of degree of bias, the individual household model is least biased, the panel level model most biased.

3.- The panel level model is most sensitive (but biased), followed by the store level model and the individual household model.

4.- Using the store level model, the median sensitivity within the TMG system is $\pm 7.4\%$. There is no difference in sensitivity between scanner and diary markets.

5.- Both the store level model and the individual household model allow the experimenter to include a number of covariates that improve the overall sensitivity. To date, no investigation has been made into the degree of bias of the store model.

6.- The individual household model, which is least biased, allows for inclusion of additional types of data, will be applied for test analyses.

1.2.2. Analysis of Data.

Following identification of the individual household model as the appropriate methodology, this model was applied to a unique data source, a census for two years of TMG advertising strategy tests. Application of this methodology represents the first consistent analysis of a collection of historical data with the objective of developing a knowledge base regarding advertising strategy making and testing.

The data set of thirty-five tests includes all advertising strategy tests conducted and analyzed by TMG for a period of two years and is, therefore, representative of TMG's established brand testing business since no effort was made to select any particular tests. All the tests were analyzed between January 1982 and January 1984. Tests prior to January 1982 were not included since they were not analyzed using the individual household model. All test brands were national brands.

The data were first analyzed at the aggregate panel level using the individual household model. Each individual household's average brand volume in the test period was adjusted for certain pretest and test conditions. Then, by comparing all households in the test panel with all households in the control panel, the effect of a change in advertising strategy was determined. At the aggregate level, findings were restricted to the overall effect on volume without further insight into the dynamics underlying an effect such as the effect on penetration (the number of new buyers of the brand), repeat (the number of buyers of the brand who repurchase the brand) or the amount bought (the amount of the brand purchased by consumers). (See table 1.5. for definitions of the terms used in this Chapter.) However, even at the aggregate level, some directional evidence emerged regarding these dynamics. The data were obtained from the hard copy reports used for presentation to clients. Unfortunately, not all reports contained information on all measures that were of interest to this research. Hence, analyses of the importance of these measures were restricted to only those tests for which data were available.

The analysis at the aggregate level produced the following results regarding this overall advertising effect:

1.-	Probability of observing a panel effect due to a change in advertising strategy.	37.1%	
2.-	Probability of observing a panel effect due to a change in weight.	40.0%	average: 37.1%
3.-	Probability of observing a panel effect due to a change in copy.	33.3%	
4.-	Probability of observing a panel effect due to a change in weight, testing adv. spending against no adv. spending.	75.0%	

5.-	Probability of observing a panel effect in scanner cities.	35.7%	average: 37.1%
6.-	Probability of observing a panel effect in diary cities.	38.1%	
7.-	Mean volume change due to a change in copy.	-7.57%	
8.-	Mean volume change due to a change in weight.	+14.99%	

9.- Tests showing a panel effect had a significantly higher static size* than those that did not.

10.- Tests showing a panel effect involved brands with significantly lower brand share than those that did not.

* Static panel size: the total number of panel members who report on their purchases consistently during the pretest and test period and who are included in the analysis.

These results led to some observations that may offer significant additional insights into advertising response:

1.- With respect to response to changes in advertising strategy, the effects were relatively small in number and were both positive and negative. For instance, overall there was less than a 40% probability of causing an effect on volume. This probability is somewhat lower than the 50% reported in the literature. There was no significant difference in the probability of observing an effect between copy and weight tests. However, testing advertising against no advertising showed a 75% probability of observing an effect.

2.- All copy tests showed a negative effect and all weight tests showed a positive effect. Although evidence exists (see chapter 2) that copy tests can affect sales positively, the findings of this research suggest that the risk associated with changing an established brand's copy strategy is significantly greater than when its advertising weight is increased.

3.- Although the ranges varied between +5% and +45%, if advertising weight is increased and causes an effect, an average +15% change in volume can be expected. This change is significantly larger than the changes reported in the literature. The analysis at the aggregate level provides directional evidence that this change comes primarily from increases in penetration rates.

4.- Brands with a 50% or higher share are least likely to respond to changes in advertising strategy, and as the level of share increases, the absolute volume change decreases. It was also estimated at the aggregate level analysis that, if an effect is observed, approximately 40% of the test brand's increase in volume comes from consumers switching to the test brand and over 30% from increased category purchasing.

5.- Increasing weight in Gross Rating Points (GRP's), a measure of the total impression being delivered by a particular media schedule, by 50-70% resulted in the largest proportion of tests showing an effect. In part this may have been influenced by the fact that larger differences in weight were tested during relatively longer test periods and, therefore, had smaller static sizes. However, it supports the hypothesis that the relationship between advertising and sales is nonlinear.

6.- As was indicated above, the number of observations significantly influences the ability to estimate an advertising effect. The test results confirm that the probability of observing an effect improves significantly as static sample size increases, especially when it exceeds 2,000 households. The length of the purchase cycle and the share of the brand also directly influence the number of purchase occasions. Although tests for brands with short purchase cycles did not show a significantly larger number of effects than those with long purchase cycles, directional evidence exists. With respect to share, there was no difference in the proportion of copy or weight tests showing an effect; for reasons elaborated on in section 1.2.3., the former had been conducted primarily for brands with small shares, whilst weight tests had been done for brands with relatively larger shares. Given that larger shares could potentially increase the number of observations, one would have expected to observe relatively more advertising effects. Yet, for large share brands, the opposite was found, which may confirm the belief that it is difficult to increase an already large share.

Again by using the individual household model, the data were subsequently analyzed at the disaggregate level in order to identify the effects of advertising on certain consumer segments and on measures such as penetration, repeat, and amount bought. In order to perform this analysis, a behaviorally-based definition of brand loyalty was applied as a means of segmenting TMG panelists. This was Jacoby and Chestnut's (1978) definition, which suggests that brand loyalty is a "biased (that is, non-random), behavioral phenomenon, which is a function of psychological processes and is expressed over time by some decision making unit with respect to one or more alternative brands out of a set of such brands". With the exception of a psychological (that is, evaluative, decision-making) measurement, all conditions were satisfied. The analysis included not only tests for which an aggregate panel effect had been identified but also those for which no aggregate panel effect had been identified, since it was conceivable that an effect on repeat or penetration was significant but too small to be observed at the aggregate level. The following results were obtained:

1.- Probability of observing
    an effect at a
    disaggregate level............... 60.0%

2.- Probability of observing
    an effect on penetration
    due to a change in weight:
    if effect at aggr. level......... 60.0%
    if effect at disaggr. level..... 100.0%

3.- Probability of observing
    an effect on repeat due to
    a change in weight:
    if effect at aggr. level.......... 0.0%
    if effect at disaggr. level....... 0.0%

4.- Probability of observing
    an effect on penetration
    due to a change in copy 50.0%

5.- Probability of observing
    an effect on repeat
    due to a change in copy....... 50.0%

6.- Probability of observing
an effect on buying rate
due to a change in weight:

if effect at aggr. level........	100.0%
if effect at disaggr. level.....	100.0%

7.- Probability of observing
an effect on buying rate
due to a change in copy:

if effect at aggr. level.........	50.0%
if effect at disaggr. level......	66.7%

8.- Probability of observing
a negative effect on
buying rate due to a change
in copy:

if effect at aggr. level.........	50.0%
if effect at disaggr. level......	33.3%

9.- Probability of observing
an effect due to a change
in weight on:

heavy buyers.....................	66.7%
light buyers.....................	33.3%

In general, it was found that if an effect was observed at the aggregate panel level, in almost all cases an effect at the disaggregate level was identified. However, even if an effect could not be estimated at the aggregate level, an advertising effect could still be identified on one or more of a brand's volume components; these significant effects on volume components were too small to be observed at the aggregate level. Therefore, it could be argued that the number of tests showing any effect is significantly higher than the 37.1% suggested above by the analysis at the aggregate level. In fact, if the effect on penetration and repeat is considered an advertising effect even if no aggregate panel effect was identified, twenty-one (8+13) out of thirty-five tests, or 60%, showed an effect due to a change in advertising strategy. As was noted earlier, this number is obviously biased by the fact that an analysis at the disaggregate level was not conducted for all studies. However, assuming that the analysis at the disaggregate level was conducted for a representative sample of studies for which no aggregate panel effect was identified, the percentage of tests that responded to changes in advertising strategy is significantly higher than was estimated above and than has been reported in the literature.

With respect to increases in advertising weight, an effect on the test brand's volume seems to have been caused by an increase in the number of new buyers of that brand. Even if no aggregate panel effect was identified, an effect on penetration was still observed in more than 60% of the weight and copy tests. Since most brands included in this database are in an established category, this finding would suggest that a significant amount of brand switching occurred when consumers were exposed to more advertising. By contrast, it was significantly less likely to observe an effect on penetration at the aggregate level due to a change in copy strategy. Clearly, copy changes seem more likely to negatively affect repeat rates and the amount consumers buy. Due to the small sample sizes these findings, however, may not be conclusive. Also, weight tests always affected the amount consumers bought whereas copy tests were significantly less likely to do so.

In summary, the results of the disaggregate analysis indicated that weight tests caused consumers to be more likely to switch to the test brand or buy more of it (especially heavy buyers), and less likely to affect repeat rates. Copy tests were more likely to negatively affect repeat rates and the amount bought, and less likely to positively affect penetration (with the possible exception of light buyers) or repeat.

1.2.3. Advertising Strategy Decision Making.

Findings from the analyses provided the basis for developing guidelines to assist in devising and testing advertising strategies, the second objective of this research. These guidelines were applied to two growth strategies that are appropriate for established brands: market penetration and market development. Market penetration refers to marketing existing products in existing markets, whereas market development is defined as marketing existing products to new markets.

Market penetration can be achieved through a share objective (holding or gaining) or through increasing product usage. With respect to the former, the results of this research confirm that for brands with relatively large shares (50% and higher), changes in advertising strategy, with the objective to hold market share, caused no effects. Or, said differently, the effect was that market shares were held. For brands with a relatively small share (averaging around 23%), significantly more effects were identified (53%, or eight out of fifteen tests). Since these smaller share brands probably were aiming at increasing share, the results suggest that changes in advertising strategy may be a viable means of doing so. In addition, the magnitude of the increases caused by increases in advertising weight were substantial (averaging around 15%), which, therefore, may suggest that the pay-off of these changes can be significant for smaller share brands. Thus, if smaller share brands implement an increase in advertising spending, the probability of observing an effect is high and the magnitude of the effect is likely to be relatively large.

As was observed above, copy changes showed a significantly higher probability of causing a negative effect than did weight changes. Also, copy tests were done primarily for brands with smaller shares, whilst weight tests were done for brands with larger shares, which may suggest that low-share companies attempted to obtain share increases by means of changing their brands' position, hoping thereby to establish a competitive advantage vis-a-vis the market leader. Although copy tests can cause positive effects (see chapter 2), all copy changes that were analyzed as part of this research caused a negative effect. It may, therefore, be concluded that, for small share brands, it is hard to obtain a share increase by changing the copy strategy and that considerable risk is associated with this strategy. Yet, as will be shown in chapter 7, copy changes may still be the more appropriate strategy for small brands, since alternatives such as increasing advertising weight or promotions may not be feasible, depending upon the resources of the company and the likely high level of promotional activity of the market leader. Moreover, small brands without any previous advertising spending may benefit substantially from advertising. It therefore may appear that changes in copy strategy or adding advertising expenditure to the promotion mix for small share brands are indeed likely to be successful strategies. However, testing this on a limited scale before national execution may be essential in order to avoid the risk that seems inherent in changing copy.

In this database, weight increases for large share brands showed a zero probability of causing an effect on share. Generally, though, as was suggested above, companies tend to increase advertising weight to maintain share in response to competitive advertising pressure. However, since weight tests for large share brands did not show any effects, testing the risk associated with a decrease in weight may be a viable alternative. This may result in longer tests, since the decay of advertising often takes longer to observe (Little, 1979). Since tests for weight increases last on the average approximately ten months, these tests may now have to run for eighteen to twenty-four months.

Table 1.1. summarizes these findings and recommendations.

Advertising Strategy and Market Share Objectives

BRAND	ADV. CHANGE EFFECT BY MARKET SHARE OBJECTIVE		IMPACT ON VOLUME AND PROFITABILITY	RECOMMENDATION
	HOLD	GAIN		
large share (≥50%)	no effect (copy or weight)	no effect	decrease in profitability	test weight decrease (longer tests: 18-24 months)
small share (≈23%)		weight: 53% prob. of effect	≈15% incr.in vol decr. in profit.	long term profit.: add adv. or weight to promo. mix.
		copy: all neg.	≈7% decr. in vol decr. in profit.	short term profit: test for winning copy

table 1.1.

The second objective in achieving market penetration, increasing product usage, can be pursued by increasing either product usage (including creating new applications for the product or the amount of product bought. The results of the analysis at the disaggregate level suggest that strategies aimed at increasing repeat (frequency of usage or repurchase) are rarely successful. Although the sample sizes are small, none of the tested weight changes and only one of the copy changes (negatively) affected repeat. However, when weight changes are successful, they tend to affect heavy category buyers, that is, the consumers who are already convinced of buying the brand and are, therefore, more easily convinced to buy more of it or more often.

Buying rate, or the amount bought, on the other hand, was almost always affected. Weight changes were particularly successful, but copy tests were significantly less successful. This may support the argument made above, that copy changes should not be used to increase the amount bought. In fact, since all copy tests showed an overall negative effect, copy changes run a significant risk of decreasing the amount bought. It appeared that light buyers were particularly affected by this strategy.

Table 1.2. summarizes the implications for advertising strategies directed toward product usage objectives.

Advertising Strategy and Product Usage Objectives

PRODUCT USAGE OBJECTIVE	ADVERTISING STRATEGY	EFFECT	RECOMMENDATION
Repeat (frequency of usage) (incl. new applications)	copy	not effective	do not pursue
	weight	effect. on heavy. buyers	only pursue if heavy buyers are large part of business
Buying Rate (quantity used)	copy	60% prob. of success, but risk of neg'y affecting light buyers	test for "winning" copy
	weight	high prob. of success (decr. in purch.cycle)	add weight; copy should emphasize usage situations

table 1.2.

With respect to the second growth strategy for established brands, market development, the analyses indicated that 100% of the weight tests and 60% of the copy tests that were analyzed for an effect on non-user penetration indicated success. This may suggest that large share brands, for which mostly weight tests were done, were successful in reaching the non-user, presumably by advertising more during additional times. Copy tests, primarily done for smaller share brands, were also successful in attracting non-users, but the negative effect on the existing franchise was always significantly larger than the gain in volume from non-users. It is likely that the heavy users of small brands were not negatively affected by changes in copy, but that the major negative effect came from the light buyers of these small brands. In addition to the effect on non-users, heavy buyers were positively affected by weight increases. Weight increases, therefore, seemed to be effective in reaching both the heavy buyers and non-buyers.

Table 1.3. summarizes the implications for advertising strategy directed toward the non-user, and table 1.4. summarizes the findings and recommendations with respect to the choice of either weight or copy strategies.

Advertising Strategy and the Non-User Objective

OBJECTIVE	ADVERTISING STRATEGY	RESULT	RECOMMENDATION
non-user	weight	82% prob. of effect. Small effect on total volume.	Effective only if large increase in penetration can be obtained and if new users can be converted to loyal buyers.
	copy	60% prob. of effect. Small effect on total volume. Effect on light buyers.	Effective only if large increase in penetration can be obtained and if light users are not affected. Test for "winning" copy.

table 1.3.

Summary of Recommendations for Advertising Strategy

OBJECTIVE	RECOMMENDATION
Hold/gain share	Test weight decrease for large share brands (tests should last longer).
Build share (for small brands)	If long term profitability objective: test advertising or weight increases. If short term profitability objective: test copy until "winner" has been identified.
Increase repeat (frequency of use)	Changes in copy strategy not effective. Changes in weight effective if heavy users represent large share of franchise.
Increase buying rate (quantity used)	Add weight. Test copy until "winner" has been identified.
Increase penetration (convert non-users)	Both weight and copy effective, but change in volume not substantial. For copy tests: risk of turning off light users. New users need to become loyal users.

table 1.4.

1.2.4. Enhancement of TMG Data and System Design.

The third objective of the dissertation is to provide TMG with direction for further enhancement of its data and system design. With respect to the former, it is recommended that TMG expand this research by gathering information on an ongoing basis regarding a number of key market/product characteristics. Specifically, this would include information on and estimates of the stages of the brand's life cycle, market growth rates, and the competitive environment, which are relatively easy to obtain from the behavioral data that are being gathered by TMG, and can significantly improve advertising strategy decision making. These additional data will, by validating and expanding this research, allow TMG analysts to add valuable dimensions to the interpretation of the test results and will ultimately lead to improved understanding by clients of the dynamics underlying the advertising-sales relationship for established brands. For instance, experiments can then be conducted to determine if weight increases are more effective in fast growing markets, thereby allowing the advertiser to obtain a disproportionately larger share. Similarly, one can investigate the possibility that copy tests are appropriate for brands that are in the growth phase of their life cycle in slowly growing markets.

Furthermore, evidence has been presented of the need to test the effect of advertising weight decreases. Although it is likely that this strategy may find resistance with clients as well as advertising agencies, a number of publications, in addition to the findings of this research, have suggested its usefulness. TMG could market this service to prospective (large brand share) clients by offering test periods of eighteen or twenty-four months for a reduced price.

With respect to TMG's system design, a number of key advertising strategy issues remain unaddressed because of present limitations. It was proposed on the basis of this research that TMG implement system changes that would allow it to offer greater specificity in advertising strategy testing. For example, more accurate estimates need to be obtained of reach and frequency in relation to individual members of panel households. Other data such as coupon or in-store promotion data could potentially improve the analysis of the effects of advertising. It was suggested that TMG investigate the possibility of introducing a system that would generate even further disaggregated data, a logical extension of this research. This system, referred to as a single source system, could obtain over time data on the psychographics, demographics, and purchase and media behavior of individual members of panel households. Such a system would allow for an improved specificity as to which member(s) of the panel household actually see the test brand's and its competitors' advertising.

To obtain this level of specificity, it was proposed that technology needed to be introduced that would allow the panel to be divided into more than two groups. Hence, more than one alternative media or copy strategy could be tested at the same time, provided, of course, that enough observations could be obtained, and effective exposure levels could be determined rather than inferred ones. Given that the experimenter could then obtain more than two datapoints on the advertising response curve, an optimal level of advertising expenditure could be determined.

In addition, competitive advertising data need to be gathered. For instance, it has been assumed throughout this dissertation that a 100% increase in advertising weight does indeed "translate" into an equal increase in the test brand's share of category advertising. However, this does not need to be the case. Data on the level of competitive advertising would allow for a more precise measurement of the relative advertising weight of the test brand.

Finally, by asking the panel households to report on their exposure to other media, the issue of the effectiveness of the entire media mix could be addressed.

This proposal for the development and testing of a single source system was followed by TMG. Therefore, a report on the results is added to this dissertation.

1.3. Overview of Dissertation.

Chapter 2.

Chapter 2 provides a theoretical context for evaluating the objectives and contributions of this dissertation by presenting the issues involved in measuring the sales response to advertising through fixed consumer purchasing panels, and by assessing achievements to date.

In the first part of this chapter, two types of research are defined, experimental and non-experimental. A survey is made of reported non-experimental research and of the relatively few reported experiments on marketing variables, particularly tests of advertising weight and copy strategies.

In focussing upon experimentation, the basic objective in systematically testing different strategies is defined as the identification and quantification of a relationship between the strategy and a dependent variable such as sales, penetration, or repeat. While it is suggested that the most compelling reason for testing variables is risk reduction, risks and practical difficulties associated with testing are pointed out. It is concluded that the consequent complexity of the decision of whether to test or not greatly increases the importance of securing accurate and useful results. Two reported systems for testing advertising effectiveness are discussed, the Milwaukee system and the "split" cable or CATV system. The latter, which is used by TMG, is considered to be potentially more useful than the former if the system possesses sufficient sensitivity. System sensitivity is the central issue in the development of an improved methodology, which is the initial objective of this dissertation.

Evaluation of reported advertising experiments results in the following conclusions:

1.- While more promising than non-experimental research, experimental studies have not yet proved themselves to be accurate in identifying, quantifying, and predicting the advertising-sales relationship.

2.- Experiments must be designed in the expectation that the likely impact of advertising changes will be small.

3.- The analytical methodology to be applied must be capable of identifying and quantifying these small differences between test and control groups.

The second part of the chapter presents within an historical context the nature and research uses of continuous consumer panels. Experimental uses of consumer purchase panels, of which TMG's system is an example, receive particular attention. Such uses are evaluated, resulting in the following conclusions:

1.- Research use of consumer purchase panels is being increased and expanded, in part because this system permits insights otherwise unobtainable through alternative methodologies.

2.- Reported results have been disappointing, in part because of an inability to analyze panel data with sufficient accuracy and an underutilization of panel data.

3.- Among problems inherent in most panel data operations, one in particular affects the split cable system used by TMG, namely continuity of the reporting panelists.

4.- A need exists to improve the ability to use panels effectively, especially given the fact that their

Chapter 5.

In chapter 5, the improved methodology is used to analyze the results of a set of TMG weight and copy tests at the aggregate level. Relationships between advertising treatments and subsequent consumer behavior are identified and quantified as a basis for achieving the second objective of this dissertation: to establish empirical norms as guidelines in future advertising decision making. At the aggregate level, findings are restricted to the overall effect on volume without insight into the components of that effect.

Chapter 6.

In chapter 6, the improved methodology is used to analyze the results of the same sample of TMG data at the disaggregate level. This analysis provides further insights into the dynamics underlying an advertising effect, that is, the components of the effect. These dynamics include the effect on various individual consumer segments and on measures such as penetration, repeat, and amount purchased. In order to perform this analysis, a behaviorally-based definition of brand loyalty is first applied as a means of segmenting TMG panelists.

Chapter 7.

In chapter 7, results of the analyses of TMG historical data are used as a basis for achieving the second and third objectives of this research:

1.- to establish some empirical norms as guidelines in devising and testing television advertising strategies for established brands; and

2.- to provide TMG with direction for further enhancement of its data and system design.

Appendix I

Appendix I presents the results of the research conducted as a result of one of the proposals presented in chapter 7: the development and testing of a single source data system as a means of improving specificity in measuring the advertising-sales relationship. An initial review is made of published studies on single source data, and a framework for evaluating media is presented that demonstrates the advantages of these data. A report is made on the experimental single source data base, followed by an examination of potential applications for the data and a proposed framework for analyzing them. Reference is made to McDonald's (1970) analysis approach, which served as a partial guide for the research. The initial results of the analysis are presented, and conclusions regarding their implications for TMG's system design are drawn.

Definition of Terms Used in This Chapter.

Advertising Strategy Test
A test of an increase in television advertising weight or a change in copy in a controlled environment using a continuous consumer purchase panel. (See also **Copy Test** and **Weight Test**.)

Amount Bought (Buying Rate) The amount of the brand purchased by a consumer during a given period of time.

Buying Rate See **Amount Bought.**

Copy Test A test of the effect of a change in copy on a fixed group of test panel households over a period of time. A matched group of panelists who receive the old or a different version of the test copy ensures control of external factors.

Diary Panel A group of households, selected on the basis of their representativeness of the total USA, who continuously report on their daily purchases by filling out a paper diary.

Fixed or Continuous Consumer Purchase Panel
A group of households, selected on the basis of their representativeness of the total USA, who continuously report on their daily purchases.

Frequency The total number of times an advertising message is delivered to an audience within a set period of time.

Gross Rating Points (GRP's)
A measure of the total impression being delivered by a particular media schedule.

Individual Household Model
A model to determine the effect of a change in advertising strategy, in which individual households' responses are compared after adjusting for differences between households (such as family size or pretest purchasing behavior).

Market Development Marketing existing products in new markets.

Market Penetration Marketing existing products in existing markets.

Panel (aggregate) Effect
An effect on a test panel due to a change in advertising strategy. The determination of the advertising effect is made by comparing the average purchase behavior between households across the test and control panels after adjusting for differences. A panel (aggregate) effect is identified by using the individual household model.

Panel (aggregate) Model
A model to determine the effect of a change in advertising strategy, in which panel households are aggregated to the panel level at each time

period to compare the difference in the average purchase behavior across the test and control panels.

Penetration The number of new buyers of the brand during a given period of time.

Reach The total audience a medium actually exposes to advertising, in unduplicated individuals.

Repeat The number of buyers of the brand who repurchase the brand during a given period of time.

Scanner Panel A group of households, selected on the basis of their representativeness of the total USA, who continuously report on their purchases by presenting an identification card at the time of purchase. The Universal Product Code (UPC) is "scanned" over an infrared light, thereby registering the brand, its price, the date, and the store at which it was purchased.

Sensitivity The ability to detect an effect on sales of a change in advertising strategy.

Single Source Data System A procedure for gathering any type of demographic, purchase behavioral, or media habitual data obtained from a single household over time.

Static Size The total number of panel member households who report on their purchases consistently during the pretest and test period and who are included in the analysis.

Store Model A model to determine the effect of a change in advertising strategy in which the total weekly brand purchases by panel households, within a store, are compared after adjusting for differences between stores (such as prices or promotional efforts).

Weight Test A test of the effect of an increased amount of advertising on a fixed group of test panel households over a period of time. A matched group of panelists who do not receive the increased amount of advertising ensures control of external factors.

table 1.5.

Chapter 2

Measuring the Advertising-Sales Relationship.

In order to provide a theoretical setting for the study, this chapter reviews the means of measuring sales response to advertising, in particular the use of testing systems based on continuous consumer purchase panels. Evidence will be provided of the need to develop a methodology that can improve the usefulness of these testing systems, which is the initial objective of this research. The following areas of previous research will be considered:

1.- experimental and non-experimental approaches to and issues in measuring the advertising-sales relationship;
2.- findings of reported weight and copy tests;
3.- applications and problems of panels in testing marketing variables;
4.- panel-based systems for testing television advertising strategy.

2.1. Approaches to and Issues in Measuring the Advertising-Sales Relationship.

In the USA alone in 1983, the leading one hundred advertisers spent almost $19 billion on advertising (Advertising Age, September 14, 1984). Given such a significant expenditure, the issue of the relationship of sales to advertising is central to marketing management, and consequently a great deal of literature has been written about it. However, the literature appears to be inconclusive about both the nature of this relationship and the appropriateness of alternative methodologies that may be utilized in its measurement.

Historically, two approaches have been used for measuring the response to advertising. The first approach, non-experimental research, relates advertising to sales data without controlling for market place conditions that are external to the variables of the study. By relating the variation in sales data to changes in advertising expenditures, estimates are obtained of advertising elasticity. As Little (1979) noted, this class of non-experimental research is affected by contaminating influences of variables not related to the studies, and generally also has methodological weaknesses, such as autocorrelation, as well as limited generalizability to real world phenomena (that is, weak external validity).

In experimental research, the second approach, an attempt is made to control the environment. Generally, two techniques are used. The first technique employs "matched markets" (Lodish and Pekelman, 1978) by the a priori selection of markets that behave similarly over time. Sales data of a number of geographical areas are compared to arrive at two or more matchable markets, either cities or geographical areas. An experimental treatment is administered (e.g., advertisement) in one of these markets, and the statistical difference between the treatment and control (non-advertised) market is assessed. These "field experiments" generally do not control for such conditions as weather or local politics, which can influence the test.

The second experimental approach, "laboratory tests", are characterized by their high degree of internal validity. Test and control groups are matched within the same environment in an a priori attempt to ensure that changes in external conditions will affect both groups equally. Differences in purchase behavior between the test and control groups, either measured on a post-only or a pre-post basis, indicate the effect of the treatment. TMG's system is an example of such a laboratory (see section 2.4.2. and Appendix II).

A number of general reviews exist of the impressive amount of literature on the relationship between advertising and sales, including Clarke (1976 and unpublished), Little (1979), Albion and Farris (1981), Aaker and Carman (1982) and Assmus, Farley and Lehmann (1984). Several apparent recurrent phenomena can be generalized across this wide body of research such as: an upward trend shortly after the start-up of advertising; a decay rate slower than the upward trend; a threshold-like effect at low levels; a change of effectiveness over time due to copy changes, etc.; loss in sales due to competitive advertising; and a possible temporariness in the response to advertising. In measuring these phenomena, Aaker and Carman (1982) divided the impact of advertising into five specific aspects of the advertising-sales relationship:

1.- the short-run brand demand advertising effect,
2.- the short-run carryover,
3.- the primary demand advertising effect,
4.- the response of competitive marketing to an increase or decrease in brand advertising, and
5.- the long-run advertising impact on the process of goodwill creation, persistence and decay.

However, in spite of general agreement on the existence of these phenomena, a number of problems in measuring advertising effectiveness have been identified (Kuehn, McGuire and Weiss, 1966). Most notably, needs are cited for the development of a framework or model for analysis and the development of suitable statistical procedures for the estimation of parameters. Clearly, this relates both to the experimental and non-experimental approaches; however, experimental studies appear to offer the greater promise for systematic theoretical and methodological development, given the current stage of development of advertising research and theory (Little, 1979). Given the multiplicity of variables affecting advertising, and the limited generalizability of the research designs of much of the current research (see, for instance, Perdue and Summers, 1986, for a review of the problems associated with marketing experiments), utilization of experimental studies appears to be a prerequisite for theoretical development in advertising research. An example of such development in experimentation was given by McDonald (1970).

Indeed, the published empirical results suggest that experimental studies have generated insights different from those based on an analysis of non-experimental data. For instance, Aaker and Carman (1982) found that many of the non-experimental studies had conflicting findings, since the data intervals they were based on differed. Some had monthly, bi-monthly and yearly data. Clarke (1976), for example, found that annual data could exaggerate the long-term effect of advertising relationships.

2.2. Survey of Reported Non-Experimental Measurements of the Advertising-Sales Relationship.

Aaker and Carman (1982) reviewed sixty-nine non-experimental studies conducted during the previous fifteen years. Assmus, Farley and Lehmann (1984) published a similar review based on twenty-two studies, many of which were the same as those listed in the Aaker and Carman review. The data of Aaker and Carman's (1982) study covered thirty-seven product markets and one hundred and seventy-six brands. Of the sixty-nine studies, twelve were excluded because of methodological reasons or because they used new products. In twenty-nine studies, it was possible to estimate the response to advertising (see table 2.1.).

Published Non-Experimental Studies of the Advertising-Sales Relationship

Studies Examining	References	Data	Products
Immediate Effect of Advertising	Lambin 1969, 1970, 1972, 1976.	annual	elec. shavers gasoline
	Beckwith 1972	monthly	consumable gd
	Aaker et al. 1982	monthly	cereal
	Sexton 1970	weekly	grocery
	Parsons 1976	annual	soap
	Houston and Weiss, 1974	bi-monthly	
Cigarettes and Liquor	Schnabel 1972	annual	
	Lambin 1976	annual	cigarettes
	Bass 1969	annual	cigarettes
	Dominiquez and Page, 1971	annual	cigarettes
	Horsky 1977	annual	cigarettes
	Simon 1979	annual	liquor

Lydia Pinkham	Palda 1964	Lydia P.	
	Clarke and McCann, 1973	Palda's LP	
	Hanssens 1980	Palda's LP	
Carry-over w/o Explicit Competitive Reaction	Lambin 1976		autotrain
	Morey and McCann, 1980	monthly	Navy recruit.
	McCann and Ojdana, 1979	bi-monthly	beer
	Bass and Clarke 1972	monthly	dietary
	Aaker and Day 1974	bi-monthly	coffee
Carry-over with Competitive Response	Peckham 1972	annual	packaged gds
	Hendon 1981		packaged gds
	Buzzell and Baker, 1972	monthly	automobiles
	Bass and Parsons, 1969	bi-monthly	
	Hanssens 1979	quarterly	airline
	Schultz 1971	quarterly	airline
	Lambin 1976		detergent
	Wildt 1974	bi-monthly	snack food
	Picconi and Olson, 1978.	bi-monthly	beverage

Source: Aaker and Carman, 1982.

table 2.1.

In studies that estimated the immediate effect of advertising, elasticities were found ranging from .02 (Lambin, 1976) and .111 (Parsons, 1976) to .416 (Houston and Weiss, 1974). Aaker et al. (1982) and Sexton (1970) did not find any significant relationships. Beckwith (1972) found a significant (unquantified) relationship.

In cigarette and liquor annual data, elasticities ranging from .001 to .0078 (Simon, 1979), and from .154 (Lambin, 1976) to .18 and .32 (Schnabel, 1972) were found. Bass (1969) and Dominguez and Page (1971) found a certain degree of overadvertising, whereas Horsky (1977) and Simon (1979) found that the cigarette and liquor brands they analyzed received significant and profitable returns from their advertising. The latter suggested that five brands were underadvertized.

Lydia Pinkham data were used in Palda's (1964) study, which yielded elasticities around .3. Subsequent re-analysis of these data by Clarke and McCann (1973) and Hanssens (1980) yielded slightly smaller estimates of .14 to .18. Across these studies, the elasticities ranged from .065 to .5.

Studies that modeled carry-over without explicit competitive reaction yielded elasticities ranging from .08 (Bass and Clarke, 1972) to .1 (Lambin 1976, Morey and McCann, 1980). Carry-over effects were estimated to be between three months (Bass and Clarke, 1972) and four to six months (McCann and Ojdana, 1979). Aaker and Day (1974) did not find any significant relationships, and Morey and McCann (1980) suggested a 35% reduction in the advertising level.

Modeling carry-over effects with competitive response, using short data intervals, showed that the elasticity of .076 would be reduced to .032 because of a competitive reaction (Lambin 1976). Buzzell and Baker (1972) estimated the carry-over effect to be around one month if competitors responded. Bass and Parsons (1969) did not find a significant relationship. Peckham (1972) and Hendon (1981) found that for many of the brands, market share was maintained as long as advertising share was maintained. Others (Wildt, 1974, and Picconi and Olson, 1978) found a certain degree of overadvertising.

In table 2.2. the elasticities from the studies discussed above are classified across markets and brands (Aaker and Carman, 1982):

Results of Published Non-Experimental Studies of the Advertising-Sales Relationship

	Markets	Brands
Products		
grocery store items	20.	98.
cigarettes	4.	19.
proprietary drugs	2.	3.
air travel	2.	5.
liquor	1.	10.
automobiles	2.	20.
durables	2.	7.
services	2.	6.
gasoline	1.	7.
navy recruiting	1.	1.
	37.	176.
Period Length		
annual	10.	35.
quarterly	6.	31.
bi-monthly	7.	58.
monthly	11.	48.
bi-weekly	1.	2.
weekly	2.	2.
	37.	176.
Current Period Elasticity		
.1 - .5	7.	19.
less than .1	13.	53.
significant but not reported	8.	27.
not significant	3.	8.
no information	6.	69.
	37.	176.
Long-Term Goodwill Effect		
significant	27.	90.
no information	10.	86.
	37.	176.
Competitive Advertising Effect		
significant	17.	104.
no information	20.	72.
	37.	176.

Under- or Overspending		
bias toward overspending	8.	21.
bias toward underspending	7.	28.
no information	22.	122.
	37.	176.*

Source: Aaker and Carman, 1982.

(* Does not add up correctly due to mistake in original article.)

table 2.2.

Across the studies listed above, ninety of the one hundred and seventy-six brands that were examined showed some degree of goodwill, and, therefore, the issue becomes one of estimating to what extent advertising contributes to this goodwill. However, the issue is complicated by the fact that most of the studies did not incorporate competitive response as a market condition so that the "true" effect of advertising cannot be estimated. As was indicated above, Lambin (1976) showed that a competitive response to increased advertising could reduce the elasticity by 52%. Moreover, one could argue that a significant degree of overadvertising existed, although one could in turn argue that elasticities do not have to be large to justify advertising.

In summary:

1.- Current advertising elasticities were estimated for one hundred and seven brands representing thirty-one markets. In eight of these markets no significant relationship was found. In fifty-three markets elasticities were under .1, and, of those, eleven markets had current effects based upon annual data.

2.- Optimal advertising expenditures were estimated for forty-nine brands in fifteen markets. In eight of the fifteen markets and for twenty-one of the forty-nine brands, overadvertising was reported.

In reviewing the results discussed above, a few tentative conclusions may be drawn:

1.- The applied methodologies for assessing the advertising-sales relationship vary considerably, yielding different results regarding the nature of the advertising-sales relationship.

2.- Since the effects have been shown to be small and few in number, the methodology used for assessing the advertising-sales relationship must be able to identify and quantify these small differences.

3.- Some general agreement exists regarding apparent recurrent phenomena in the response of sales to advertising.

A need exists to compare the results of published non-experimental studies to those of experimental studies. Since, as was argued above, experimental research may offer additional and different insights into the advertising-sales relationship, a review of the reported experiments (see section 2.3.) may lead to the identification of areas that hold the greatest promise.

2.3. Survey of Reported Experimental Measurements of the Advertising-Sales Relationship.

2.3.1. Issues and Decision Factors in Testing Marketing Variables.

Testing marketing variables involves "...of course, an experiment" (Hardin, 1966) that is conducted in a "limited, but carefully selected part of the market place" (Wind, 1982) by "systematically applying different marketing policies" (Emshoff and Carroll, 1980). In doing so, the basic objective is to identify and quantify an overall relationship between the marketing policy and a dependent variable such as sales, trial or repeat.

Therefore, experimental designs should appropriately control for conditions within a natural environment (Hardin, 1966). By taking an experimental approach to key marketing questions, "a quantitative reading of the cost effectiveness of policy variables" can be obtained, or, said differently, "information about cause and effect ... may identify relationships through controlled variation of causal policies and observation of the consequent fact" (Emshoff and Carroll, 1980).

In addition to identifying and quantifying an advertising effect, a controlled environment such as an "advertising laboratory" (see section 2.4.2.) can provide diagnostic information such as ways to improve profit, copy, advertising, placement, promotion and prices.

Recognizing some of the obvious advantages of testing marketing variables, Cadbury (1975) suggested, as did Urban and Hauser (1980), that probably the most compelling reason is risk reduction, not only in terms of monetary considerations but also for trade relations, morale of the sales force, and so on.

Under no circumstances, however, should the decision to test advertising be made routinely since there are also risks associated with testing. Johansson et al. (1976) proposed a Bayesian approach to evaluate these risks, as did Urban and Hauser (1980). Their basic premise was that, in deciding to test, the possibility of competitive reaction needs to be evaluated. An advertising strategy test, for example, may last twelve months, during which the test is accessible to competitors' retaliations or disruptions. The latter makes the test results particularly difficult to analyze since they are subject to contaminating external effects. Urban and Hauser (1980) suggested a number of other issues to evaluate, such as seasonal timing, the financial state of the company and enthusiasm of top management. In summarizing, Urban and Hauser (1980) suggested several guidelines that might aid the decision whether to test or not. In general, they found that the value of testing increases if the reliability of the test is high or if diagnostic information is needed, in which case a controlled environment test is called for. On the other hand, the value of testing decreases insofar as it allows competitors to retaliate, or when the cost of testing is high relative to the benefits gained.

The second drawback, cost, can be considerable. Including a client's internal cost and based on the average total cost of a typical advertising strategy test, using the TMG system, expenses for a test in one city can begin at one million dollars. This expense can be equivalent to the cost of the actual national execution. Investigators as early as Stanton (1967) have reported that the cost of a yearlong test in several markets (labeled a "typical design") was around $500,000, and Silk and Urban (1978) reported expenditures that often exceeded one million dollars.

In addition to the drawbacks of cost and competitive reaction, test markets may have an atypical profile, that is, they are not actually representative of the population they are assumed to represent, and generalizability is confounded.

If a controlled environment test has been decided on, potential problems in delivering the advertising plan must also be recognized. Delivering the national advertising plan in a smaller geographical area may be difficult since local television advertising practices do not allow for a precise translation of the national plan.

An additional consideration may be the counter-intuitive nature of the findings obtained from a test. For example, although increases in advertising are assumed to cause increases in sales or, at least, no negative effect, experiments have shown decreases in advertising to cause increases in sales (Ackoff and Emshoff, 1975a and 1975b).

Finally, an investigator must be prepared to encounter motivational forces operating within marketing departments that resist a decision to test: the fear of possible loss of job status or loss of control. With respect to advertising research, there is also the possibility that the agency may feel threatened.

To summarize, the rewards for marketers of testing their strategies can be significant, including not only an evaluation of the overall effect of advertising but also valuable diagnostic information. However, the associated risks and practical difficulties can also be substantial.

The consequent complexity of the decision to test or not considerably increases the need for reliability in the data, the experimental design, and the analysis. The issue of reliability will be addressed in the following section.

2.3.2. Overview of Reported Marketing Experimentation Findings.

There are only a few publications that report on the results of testing in a controlled environment. Eskin (1975) attempted to find evidence to the contrary in the Journal of Marketing and the Journal of Advertising Research from 1968 to 1973 but found no studies in which the effects of experimentally manipulated marketing variables were examined. The few notable exceptions to this lack of published work are a report by Becknell et al. (1963) on a study of the response of Teflon's sales to advertising pressure, and two applied books on the subject by Banks (1965) and Davis (1970). Also, the American Marketing Association published a bibliography on experiments in marketing (Holloway, 1967), which was updated in 1980 (Gardner and Belk, 1980). Even since Eskin's survey, few reports of test results have been published in spite of the "obvious interest among marketers to test marketing variables". A possible reason for the lack of published results may have been suggested by Emshoff and Carroll (1980), who observed that substantial resources had been invested in experimentation, but that "few organizations have been able to achieve enduring value from such programs". They felt that although many experimenters remained intrigued, most were disappointed with the ability of the experimental approach to deliver results. Gold (1964) also believed that "we have a right to expect a much greater measure of reliability and accuracy", and that, in spite of the fact that testing is "the most widely trusted of all market research tools", little or no tangible evidence existed indicating "just how useful or accurate a test is as a predictive device". Projecting the results to national levels, he believed, was probably the major justification for experimentation, especially for new product tests, media weight tests, payout tests on promotions, and "most other tests which attempt to provide an assessment of the profitability of some marketing action". He defined projection as a technique in which measurement results in a limited area are extrapolated by a factor that represents the presumed relationship between the test area and the larger limits to which the data are to be extended.

Research identified only a few published records of marketing experimentation. In a one-of-a-kind survey, Churchill (1971) reported on fifty-four test results. He found that 50% of the test results fell short of management expectations, and in only 8% of the cases did subsequent performance exceed management expectations. He suggested that, if anything, this might reflect unrealistic test goals or a reflection on the validity of tests themselves. In addition, he noted that in only 47% of the cases he examined was the test duration as long as planned. In 23% of the cases the test was suspended early, and in 30% of the cases tests were extended beyond their originally planned duration; these changes were due to the certainty or uncertainty, respectively, about the nature of the results. Another record of test results was published by A.C. Nielsen, which reported success ratios of 54.4% and 46.6% for new health and beauty aids, and for household and grocery brands, which were tested and tracked by A.C. Nielsen in 1961 and 1971 respectively. Cadbury (1975) reported a success ratio of 60% and General Foods (Business Week, 1973) reported a 46% success ratio. Success was defined prior to going into test markets by each of the participating respondents.

A more recent exception to the lack of reported findings of experimental studies is an article by Raj (1982), who used TMG data to show advertising effects across different loyalty groups (see chapter 6). Other published results, especially those relating to advertising strategy testing, will be discussed in section 2.3.3.

2.3.3. Findings of Reported Advertising Weight Tests.

In surveying the published results of media weight experiments for established brands, it must be noted that the experiments reported on are hardly a random sample of advertised products in any one year, since it is highly unlikely that most tests were ever reported because of their confidential nature. (This is true also for the non-experimental studies.)

Seven sources of such experiments can be identified, a summary of which follows:

1. **AdTel (TMG) experiments.** Forty-eight AdTel experiments were reported by Rhodes (1977). Forty-two of these were increased weight tests and six were reduced weight tests. All used diary panel data. Thirteen of the forty-two weight tests, or 31%, showed a significant difference between test and control panels. He attributed the relatively low percentage of significant results to a number of factors, e.g., compensating increases in competitive spending or entrenched purchasing habits. Of the six reduced weight tests, none showed significant decreases in sales after one year. The two reduced weight tests that ran for two years showed that the control panel was higher than the test panel.

2. **Haley's (1978 and 1985) checkerboard experiments.** In these experiments, the country was divided up into roughly two hundred television markets, and a set of those, usually about twenty, was randomly selected. Sales for those markets were then compared in order to arrive at matched markets. Only one of the experiments was a reduced weight test (25%). It showed no significant effect. He

argued the benefits of the checkerboard approach and showed that of the ten tests, four showed no significant sales response, four showed a significant sales response that did justify an increase in advertising spending and two showed a significant response that did not justify an increase in the advertising budget.

3. **Multi-year, low-weight experiments.** Four independent multi-year, low-weight experiments have been reported in the literature. Ackoff and Emshoff (1975a) showed that a 25% or even a 50% reduction in advertising in eighteen markets increased sales. In a subsequent paper (1975b) they confirmed these findings using thirty-eight areas and different treatment levels. Sevin (1965a) analyzed the response to four different advertising levels - 0.5, 1.0, 2.0, and 3.0 times the normal levels - and found that, overall, the doubling did better than the tripling (an average increase of 25% vs. 14%, respectively). Interestingly, no significant decreases in sales were observed if advertising was held at half the normal level. In a similar experiment Sevin (1965b) tested 0.5, 1.0 and 2.0 levels and found no significant changes. Urban (1975) also tested these levels in a two-year, four-quarter change-over design involving twelve areas. He found a significant effect and a significant negative carry-over effect, but one which was not enough to justify expenditures.

4. **Six additional experiments.** In a paper mentioned earlier, Little (1979) discussed three weight tests with estimated increases in sales of 5% to 10%. Vidale and Wolfe (1957) ran two experiments to show that a six-month treatment could generate the same impact as a twelve-month treatment. Finally, Winer (1980) estimated the effect of a 150% increase in advertising using a split cable design. Although there was a significant increase in sales during the test period, it did not hold after the increased weight was reduced to the normal level.

The following observations can be made about these experiments:

a.- Thirty-three of the weight tests, or 57%, showed no significant effect on sales. A number of the remaining twenty-five tests showed significant increases too small to justify an increase in advertising spending.

b.- Of sixty-nine weight tests, only eleven involved reduced weight.

c.- Ten of the eleven reduced weight tests resulted in or implied reduced advertising expenditures. Four of the five reduced weight tests that ran for two years showed no long-term effect.

5. **Five AdTel tests.** McGuire (1977), Sunoo and Lin (1978 and 1979), Zufryden (1981), Raj (1982), and Krishnamurthi, Narayan, and Raj (1986) all showed significant increases in sales due to an increase in advertising spending. Sunoo and Lin (1978 and 1979) reported on a zero-based vs. non-zero-based advertising test, and Raj (1982) showed significant effects of a 58% increase in advertising for different loyalty groups. McGuire (1977) used diary data for a canned food product (with a 35% market share) for a sixty-three week period (twenty-four weeks pre-test and thirty-nine weeks test) to measure the effect of an 88% increase in GRP's and also the effect of a pulsing strategy in conjunction with the increased weight. Zufryden (1981) analyzed the effect of a 40% increase in advertising weight on cumulative sales volume, number of purchases and penetration. Krishnamurthi et al. (1986) analyzed the effect of a doubling of advertising weight and also found a significant, positive effect.

6. **Retail Store Sales Test.** Doyle and Fenwick (1975) and Fenwick (1978) reported on an experiment in which four levels of advertising were tested. In spite of the evidence that higher levels of advertising for large stores seemed to be effective, no advertising produced the optimum profit response.

7. **Advertising Research Foundation's workshop on "Advertising Heavy Spending Tests"** (Rys, 1985). At this workshop, Figoni (1985, unpublished) showed that in split cable tests, sales for 41% of the established brands increased significantly due to an increase in advertising weight. He suggested that this finding was "disappointing" and listed a number of reasons, such as the fact that a 100% increase in advertising dollars does not necessarily represent a 100% increase in the test brand's share of category advertising. He did not indicate the number of tests upon which he was basing his percentage.

Overall, the findings of the weight tests discussed above were similar to those reported by Segnit and Broadbent (1970), who commented: "Our experience of increased weight tests for established products confirms the traditional belief that increased spending usually produces in the short term comparatively small effects". Similarly, Corkindale (1975) concluded that "it is unlikely that a simple media expenditure test will produce meaningful, measurable assessment of the effect of different levels of expenditure on the level of sales or market share".

Reporting on the findings of published weight tests in England, OHerlihy (1980) found that "only about one in twenty media tests have produced conclusions". Clancy (1972), focussing on both weight and copy tests, suggested that this 95% failure rate also held true for the USA. OHerlihy summarized four main reasons for this high failure rate:

1.- no control over other factors,
2.- suppression of valuable information,
3.- no control of random and systematic errors,
4.- the need for a reliability measure of the test.

In some cases media expenditure tests seem to be effectual. Most likely this will be in cases in which substantial effects can be expected over a reasonably short period of time and market off-take measurement is feasible and accurate. According to Corkindale (1975), results from experiments "are most valuable when they provide further information to the more fundamental exercise of understanding the dynamic effects of advertising and the contribution of advertising to the total effect of the marketing mix, where companies have established such theories". He further noted that "a media weight test should be based on some model or conception of the problem or process which is being studied". However, even if the experiments did generate meaningful results, Enis and Cox (1975) felt that management's lack of skill in interpreting these results would reduce the benefits of such experiments.

To alleviate some of the causes for unsuccessful tests, Corkindale (1975) suggested that management should:

1.- establish the objectives of the exercise clearly;
2.- estimate beforehand the expected effect of advertising expenditure change;
3.- design the experiment to be sensitive to the expected effects of changed media weight;
4.- conduct the test over a considered length of time.

Similarly, Fenwick (1978) suggested that factors such as a high level of managerial commitment, relevance of the experiment to management decision making, and use of an appropriate experimental design, could contribute to more successful tests.

In summary, a number of conclusions can be drawn with respect to weight tests.

1.- Some agreement exists that a controlled environment, such as TMG's system, is the most appropriate instrument available for estimating the relative effectiveness of alternative campaigns. Among other criteria, the degree of sensitivity of such systems determines the ability to identify and quantify the effect increased or decreased advertising has on sales.

2.- Overall, less than 50% of the studies that tested advertising weight increases showed a positive effect on sales. Over 90% of those studies testing a decrease in advertising weight showed that there was no resulting negative effect on sales.

3.- The lack of skill in analyzing and interpreting the results of weight tests may have contributed to the apparent disappointing results.

As was argued with respect to non-experimental studies, a need exists to improve upon the methodology for analyzing weight tests. In particular, since the effects of increased advertising weight are few in number and small in magnitude, a methodology needs to be developed that is capable of identifying and quantifying small changes in sales in response to changes in the amount of advertising.

2.3.4. Findings of Reported Advertising Copy Tests.

The term copy testing most often refers to the testing of copy at a given point in time. However, as Ostlund (undated) observed in a review of the copy literature, the term actually covers five distinct phases. The first three phases - position/message strategy research, copy guidance research, and rough art or commercial pre-testing - are typically carried out early on in the design process of the creative approach. The fourth and fifth phases - the pre-testing of finished art or commercials and the market testing of ads or commercials - are conducted at a later stage of the creative development. This section is primarily concerned with the fifth phase; however, a review will be made of the first four since limitations in traditional testing at this point seem to be leading to greater interest in market testing.

With regard to the first four phases, the pre-testing of TV commercials (as opposed to print ads, which are not the focus of this research), two approaches exist: the on-air, day-after-recall method and the forced exposure method. (For a detailed discussion on both, see Achenbaum, Haley and Gatty, 1967.) The latter method is primarily useful "when the advertiser presumes the theoretical relevance of persuasion as the role of advertising in creating sales" (Ostlund, undated). On the other hand, Day-After-Recall (DAR) is mainly a method for assessing the power of the commercial in getting attention. DAR has been a much discussed method, with most of the discussion centering around the validity of the measures and the methodology itself (von Gonten, 1976).

Most of the published copy testing research is based on systems such as DAR (Burke Marketing Services, Inc.), PREP (Dunn and Ziff, 1974), and CopyPlus (owned by ASI, Inc), which are all commercially available systems that test the performance of a given copy strategy through measures such as those discussed by Wind and Denny (1974). These measures include aided or unaided recall, belief, attitude change (see for an example Greene and Stock, 1966), buying predisposition, and persuasion (see Young, 1972, for a review of these techniques). By comparing the scores on such measures against norms or averages, a prediction is made about the probable success of the commercial. However, as Wind and Denny (1974) argued, "these measures, being non-purchase in nature, should ideally be related to the theoretically 'optimal' criterion of advertising effectiveness - the present value of the relative profitability of advertising alternatives. Unfortunately there is no sound theoretical or even an empirical basis for selecting any one measure as the single 'best' measure". Therefore, other systems must be considered that allow for a more direct and reliable measurement. In the absence of such systems, Wind and Denny (1974) suggested multiple criteria for measuring the effect of the creative strategy.

Few of the systems discussed above provide a link between the scores of the commmercials on such measures as recall or persuasion and sales for established brands. The inability of these systems to predict sales for established brands may have been a factor in the rise of a different type of system, which is being used to test market commercials (phase 5). Such a system is offered by TMG and other matched panel-based systems that allow for the monitoring of the effect of a given copy strategy over time so that an estimate may be obtained of the impact of the commercial on sales (Carefoot, 1982a and 1982b). These systems address the issue of "order effect", namely, the possibility that repeated exposures to a commercial may cause a different effect than does just one exposure (Ray, 1969). In fact, in analyzing nineteen copy tests done during 1963 and 1964, Ray found that the "one-shot-type systems" did not measure the long term effect.

Another major advantage of these panel-based systems is that by relating the experimentally controlled exposure to the commercial to subsequent behavior, diagnostic information can be obtained. As with matched panel-based advertising weight tests, an assessment can be made of not only what happened, but also of why it happened. Systems that measure recall or persuasion generally do not provide diagnostic information. An exception is given by Green and Schaffer (1983) who discussed a method to obtain diagnostic information from what Ray (1969) calls "one-shot-type" systems.

Another major factor that may explain the development of such panel-based systems is the lack of test/retest reliability, sensitivity and validity of the "one-shot-type" systems (von Gonten, 1976; Ostlund, Clancy and Sapra, 1977; Bloom, Jay and Twyman, 1977; Silk, 1977; Klein and Tainiter, 1983). For instance, Ostlund (undated) suggested that "only if the true differences between commercials or test ads are massive can the current crudeness of copy testing methods and measures lead to identifying true differences". Clancy (1972) also suggested that "something far better than rather unstructured longitudinal studies of sales related copy test scores is necessary". The possibility of this much needed increase in sensitivity and reliability has been offered by the advent of cable television, which has brought about split cable television copy testing (see also section 2.4.2.).

Compared with the available literature on systems such as DAR, little has been published on copy tests that have been carried out in panel-based systems. Clearly, this is in part due to the confidential nature of the tests, but also because such tests are done less frequently because of the cost and length of time, which are similar to those of a "typical" advertising weight test. Haley (1985, page 106) suggested that fewer copy tests have been reported on because "the belief of the marketing community [is] that the effects of price promotions and advertising weight are more easily measured than the effects of copy [and that there is] a lack of understanding of how advertising works". Also, pre-testing of a creative strategy can be done in an uncontrolled environment: by matching areas, one can obtain similar measures of effectiveness such as penetration, purchase frequency, user group performance and brand switching, and sales. Still, attitudinal or awareness data have to be obtained separately. For an example see Sampson and Marshall (1977).

Research revealed only a handful of published studies that have reported finding a significant effect on purchasing or usage behavior due to changes or variations in advertising copy strategy (Bloom, Jay and Twyman, 1977; Rhodes, 1977; Rao, 1978; Kuritsky et al., 1982). Failures to find copy effect in sales experiments have been reported, however (see, for instance, Dhalla, 1975), and negative results are probably underrepresented in the literature. Such evidence has high managerial relevance now when long-standing criticism of traditional advertising pretesting procedures appears to have escalated to a new level of severity (Honomichl, 1981).

Wind and Denny (1974) discussed a copy test that they analyzed using MANOVA, resulting in the suggestion that the tested copy strategy not be adopted. They proposed the increased use of multivariate techniques, such as MANOVA, to detect small differences.

Rhodes (1977) discussed the findings of thirty-six copy tests executed within the AdTel system. He came to two major conclusions. The first one, emphasizing creativity, was the suggestion that, among those tests analyzed, a focus on a mix of attributes as opposed to a "single attribute approach" had been more sales-effective. Secondly, and of particular relevance to this research, he found that changes in copy consistently offered the single largest opportunity for sales volume gains. This, he found, was in contrast to advertising weight tests. Gross (1972) had come to the same conclusion and suggested that copy changes were often more profitable than weight increase tests since only the cost of the creative development had to be included. Rhodes (1977), however, did not report on the method used to analyze the tests.

Kuritsky, Little, Silk and Bassman (1982) reported on the impact of a new creative strategy on AT&T's residence long distance market. This publication is particularly noteworthy since it describes a five-year research effort in which copy pre-testing was done using TMG's system. They found a significant difference for one of the campaigns and even estimated its effect on phone usage, that is, volume. In this experiment it was found that households were calling more during off-peak hours and it appeared that the effect was concentrated among light users. In a subsequent "post-assessment" period, the test commercial was withdrawn and although a positive effect remained, it was not statistically significant anymore.

Much remains to be learned about the dynamics of response to changes in copy strategy and the durability of such effects. Copy testing is often viewed in isolation and not as part of the decision process on communication. To date it has been a much discussed topic with little consensus. The only identified exception to this has been "PACT", which represents an endorsement of nine copy testing principles by twenty-one agencies (Marketing News, Feb. 19, 1982, page 1).

There is substantial evidence that the reliability, validity and sensitivity of copy testing results gained from using "one-shot systems" are questionable at best. The development of panel-based copy testing systems may, in part, be an attempt to improve these results. However, there does not seem to be a concentrated effort to improve copy testing systems. The Advertising Research Foundation (ARF) held some specific copy testing workshops, but there has been no dedicated research directed at developing more sensitive methods. Results from a copy research validation study recently initiated by the ARF are as yet unknown (ARF, 1984 and 1985).

Hence, it is necessary to obtain an understanding of the advantages and problems associated with panels, particularly those used in panel-based advertising testing systems.

2.4. Survey of Reported Panel-Based Experimentation.

2.4.1. Applications of Panels in Testing Marketing Variables.

As was indicated above, advertising weight and copy experiments can be conducted in a variety of different ways. It was suggested that panel-based testing systems can provide the experimenter with insights into the dynamics of the test that are mostly unobtainable through other systems. For instance, in order to be able to assess the underlying dynamics due to a change in advertising strategy, the experimenter would want to directly link the changes in advertising strategy to sales and obtain diagnostic information of these dynamics.

In marketing, the term "panel" has been widely used in two different senses (Green and Tull, 1975, page 90). Firstly, it may refer to a consumer jury by means of which some actual or contemplated action is being measured. Taste tests, new product screenings, and copy tests are a few examples of the use of these panels. Secondly, it may refer to a continuous panel, which is a sample of individuals, households or firms from whom information is obtained at successive intervals of time. These continuous panels are generally used for three distinct purposes:

1.- consumer purchase panels,
2.- advertising audience panels,
3.- dealer panels.

The consumer purchase panel, probably the type most often used in marketing, is the system used by TMG; therefore, unless otherwise stated, the word panel refers in this dissertation to this use of a continuous panel. Often consumer purchase panels are national and are made up of a representative sample of consumers in a particular country. A test market panel, like TMG's, is local and is made up of geographically representative subsamples of a national panel. The term "split panel" refers to the matched sub-groups within a test marketing panel.

Two types of panel operations exist: static (or fixed) and dynamic (or flexible). Whereas in the latter, panel members are deliberately rotated to maintain a representative sample of a particular population, in the former, special effort is made to maintain the same panel members. For certain types of applications, a need exists to monitor over time the behavior of the same group of people in order to identify changes due to a treatment, such as an advertising strategy change. TMG's panels are static. Natural attrition is offset by replacing those panelists who drop out with new panelists who are matched with them on a variety of criteria to maintain representativeness. (For a detailed description of TMG's operations see Appendix II.)

In all disciplines, but especially in marketing, which is concerned with a natural environment, controlled experiments are invaluable means of isolating and examining only the variables a priori selected for investigation. The use of fixed panels for controlled experiments has provided insights into changes over time in behavior or attitudes across the same group of people (Parfitt and McGloughlin, 1968; Green and Tull, 1975).

The information obtained from a fixed consumer purchase panel has many applications in marketing. Green and Tull (1975) noted such uses as identification of shifts in market composition, analysis of brand position, analysis of pricing or promotional impact, and buyer behavior analysis. The methodologies applied to analyze these data range from relatively simple techniques such as cross-tabs to more complicated methodologies such as Markov processes and regression analysis. By far the most extensive use of fixed consumer purchase panels, including TMG's, has been in the measurement of purchases of nondurable consumer goods. Thus, although most applications could also be made for durable goods, the focus of this review is on frequently purchased goods.

The use of panels for marketing purposes can be traced back to the late 1930's. However, most of these applications do not involve the measurement of the effectiveness of advertising. For instance, Jenkins (1938) studied brand preferences, and in a joint article with Fiske (Lazarsfeld and Fiske, 1938), Lazarsfeld described a study on lifestyles in England and reader reaction to a magazine. Later (Lazarsfeld, 1940) he used a panel to measure the reaction to radio programs.

Other applications of panels in marketing such as those studying buying patterns or evaluating merchandise offerings have been noted, for instance, by Stonborough, (1942) who identified a panel that was established and operated by the Industrial Surveys Company (later Market Research Corporation of America, MRCA) in Evansville, Indiana,; Womer (1944); and Quenon (1951).

A distinct increase in the use of panels is observed by the late 40's and early 50's. An examination of the available literature shows not only an increase in the use of panels per se, but also an increase in the variety of reasons for using panels. Between 1947 and 1955 panels were used for studying buyer patterns in New York City (Black, 1948); for evaluating merchandise offerings (Quenon, 1951); for gauging changes in readership interest in regard to characteristics of magazines (Robinson, 1947); and for following radio listenership (Dunn, 1952).

Inherent in the expansion of the use of panels was the increase in articles on methodological issues as they relate to continuous panels. For instance, issues such as proven response rates and the effect of varying time periods for reporting, among others, were addressed by Day (1948) and Shaffer (1955). Ferber (1949) discussed more general operational issues of the continuous consumer purchase panel. Brown (1952, 1953) used panel data from the Chicago Tribune to deal with the concept of brand loyalty. (See also chapter 6.)

Another example of the use of a static consumer panel was given by Sampson and Marshall (1977) in their description of a tracking study. Using a control and an experimental group, three waves of data gathering were performed: a pretest and post-tests I and II. Measuring the impact of advertising on rather qualitative variables such as attitudes and beliefs, they found that such a design could still provide insights in spite of the seemingly small change. They did not, however, provide statistical significance levels around their advertising effect estimates.

Hardin and Johnson (1971) reported the findings of a 1970 survey on the "patterns of use on consumer purchase panels". Through questionnaires sent to the one hundred and twenty-five largest national advertisers, data regarding the use of both national purchase panels and special test market purchase panels were obtained. It appeared that national purchase panels were primarily used for rather unsophisticated tasks, such as monitoring trends or establishing demographic profiles. These analyses were at the aggregate panel level. On the other hand, test marketing panels were primarily used for studying dynamics of buyer behavior. These analyses were, therefore, at a more disaggregate level. Interestingly, (below the line) promotion evaluation was least likely to be used for both types of panels. In addition, regular panel users did not differ significantly from other respondents in their ranking of uses of panels (see table 2.3.).

Percent Using Panels "Regularly" or "Frequently" for Each Purpose

Purpose	**Among All Respondents**	**Among Regular Panel Users**
use of national purchase panels		
monitoring trends	30	88
demographic profiles	30	80
brand-switching analyses	24	72
new trier-repeat buyer patterns	23	72
combination purchase	21	64
early prediction of test markets	12	40
promotion evaluation	6	20
	(N=84)	(N=25)*
use of test market panels		
new trier-repeat buyer patterns	32	95
early prediction of test markets	26	76
monitoring trends	24	67
demographic profiles	23	72
brand-switching analysis	23	67
combination purchase	20	62
promotion evaluation	6	24
	(N=84)	(N=21)*

* 13 respondents were regular users of both national and test market panels.

Source: Hardin and Johnson (1971, p. 365).

table 2.3.

From this study Hardin and Johnson concluded that purchase panels were, to a large extent, underutilized. Although the data allowed a user to obtain insight into complicated dynamic buyer-behavioral phenomena, monitoring trends seemed to be the primary use. They argued that, in spite of the fact that users were satisfied with the analytical facilities, full utilization of panel data might be enhanced by the development of better marketing decision models.

In 1977, Sudman and Ferber identified close to thirty international consumer panels (Sudman and Ferber, 1979). Most of these panel operations were located in the U.S.A. and Europe and were started after World War II. They collected data on frequently purchased food, grocery, health and personal care products, or, in the case of specialized panels, data on textile purchases, fuel purchases for heating, gasoline purchases, pet food and supplies purchases. Particular growth was noted in the specialized panels, custom panels (those created solely for a client), and panels used for test marketing. Kling (1980) and Brown, Filmer and Harris (1980) discussed a number of these specialized panels. This finding had been predicted earlier by Hardin and Johnson (1971), who identified changes in interests among a sample of the one hundred and twenty-five largest national advertisers. Although there was a difference in growth prediction between those companies that used national panels, as opposed to those who used test marketing panels, "there seemed to be a consensus that interest in test marketing panels would increase in the years ahead".

The significant increase in reports on panel use can be substantiated by the fact that the American Marketing Association has given the subject considerable attention by publishing a number of monographs. The latest was by Sudman and Ferber (1979), listing close to one hundred and twenty-five panel-related references. Prior to that, the European Society for Opinion and Marketing Research (ESOMAR) held a special seminar on panels in 1972 (ESOMAR, 1972), which was repeated in 1982 (ESOMAR, 1982). At the time of this writing, it has been announced that another special ESOMAR seminar on "Consumer Goods Panels will be held in June 1987 (ESOMAR, 1986).

As indicated above, Sudman and Ferber (1971) and Hardin and Johnson (1971) predicted the growth in specialized panels and custom panels in test marketing. McGloughlin (1983) argued the same and focussed in particular on the growth in scanner panels, which track purchases at the retail level using the Universal Product Code (UPC) for identification of each product. In 1980, Parfitt and Clay argued that specialized panels and more sophisticated data analysis were going to become more and more important. They based their remarks on work done during the 1960's (Baum and Dennis, 1961; Parfitt and Collins, 1968) that focussed on the use of panels in developing market share prediction. Parfitt and Clay (1980) further argued that panels would become even more useful for more sophisticated market share prediction techniques. Especially the use of specialized panels, they argued, might yield better predictions.

Most of these predictions were confirmed in a special section of Advertising Age (Alter, 1981) that identified one hundred national panels and many additional local panels for specific test marketing purposes: "If test marketing were a stock, you should buy it. The outlook is definitely bullish, if you go by what marketing and research executives say". In this special section, Alter looked at the number of bi-monthly product introductions reported by A.C. Nielsen as some indication of the increase in experimentation. In subsequent special sections in Advertising Age (February 22, 1982, February 21, 1983, February 20, 1984, February 28, 1985, and February 13, 1986), numerous authors gave additional evidence to support the claim that continuous consumer panels were being used more and more for testing purposes. [By that time scanner panels had obtained a strong foothold in the test marketing industry. See also McGloughlin (1983)]. For instance, in 1985 the combined revenues of just the two leading suppliers of test marketing services (Information Resources, Inc. and the Test Marketing Group, Inc.) were approximately $50 million. Moreover, Burke Marketing Services, Inc., estimated that in 1985 these two firms accounted for at least 50% of the total market research industry revenue growth.

In spite of the significant increase in the use of panels for marketing experimentation, a number of problems associated with panels have been identified. "A consumer purchase panel, like all survey techniques, is beset with numerous problems of methodology at the practical operating level. An understanding of these problems is important to [those] who will use data obtained by a panel technique" (Shaffer, 1955). However, since the focus of this dissertation is on the measurement of test effects between split panels, it is assumed here that many of the problems that have been discussed in the literature affect both split panels equally. For a detailed discussion of the problems associated with panels such as obtaining and maintaining cooperation, data accuracy, panel conditioning, and file (panel) maintenance, see, for instance, Stonborough (1942); Lewis

(1948); Drayton (1954); Shaffer (1955); Metz (1956); Lansing, Ginsburg, and Braaten (1961); Sudman (1964a and 1964b); Neter (1970); Hardin and Johnson (1971); and Green and Tull (1975).

2.4.2. Panel-based Testing Systems for Television Advertising Strategy

Two systems for testing television advertising have been reported upon (Robertson, 1971), one referred to as the Milwaukee system and another referred to as the "split" cable or CATV system. The TMG system is an example of the latter (see Appendix II). The former is based on the Milwaukee Advertising Laboratory, which was developed for the Milwaukee Journal by Ule (1966 and 1968). A similar system, developed outside the USA, is ATTARC, which was publicized by the Attwood Group in England in 1968. Shortly thereafter, the Scottish and Grampian Television began working on a split cable system.

Corkindale (1976 and 1984) called the split-cable system an "Ad-Lab", or Advertising Laboratory. It consists of carefully matched panels of consumers in the same geographical area, usually a town, where the only difference between the panels is that one panel can be exposed to one type of advertising input and another panel can be exposed to a different input. Such a design ideally allows the experimenter to address the following questions (Robertson, 1971):

1.- What is the effect of additional or reduced airtime expenditure on sales volume?

2.- What is the effect on sales volume of such factors as different schedules, frequencies of exposure, times of day, lengths of commercial or different creative copy treatments?

3.- What is the optimum level of advertising expenditure on TV for a given brand?

4.- What is the optimum scheduling mix?

5.- What happens to sales when TV and other media are combined and what media mix optimizes profit?

Like Robertson, McGuire (1977) also found that "split-cable TV panel data may be the most appropriate instrument available for estimating the relative effectiveness of alternative campaigns". In discussing alternative advertising laboratory systems, however, Robertson (1971) remarked on the importance of a "sensitive system", or the ability of the analyst to determine with a great degree of confidence the effect of a test variable. This issue is central to the development of an improved methodology for analyzing TMG data, which will be proposed in chapter 4.

2.5. Conclusions.

The following tentative conclusions may be drawn from the discussion above:

1.- Modeling the advertising-sales relationship as a function of spending level or copy strategy is difficult. Neither the experimentally- nor the non-experimentally-based studies have yet proved themselves accurate in identifying, estimating and predicting this complex relationship.

2.- The varying results of the experimental and non-experimental studies do not appear to have generated a knowledge base for assessing the relationship of advertising to sales. Although a review of the published studies has revealed some recurrent advertising phenomena, few empirical norms can be identified that may guide managers in advertising decision making.

3.- The experimental approach, however, offers more promise as a reliable method to investigate the advertising- sales relationship and also provides diagnostic information. Experiments must be designed carefully since the likely impact of changes in advertising strategy is small.

4.- The applied methodology must be able to identify and quantify these small differences between test and control groups.

5.- An increase in the use of continuous panels for testing marketing variables has been observed. This increase may be justified, in part, by the insights otherwise unobtainable through alternative research methodologies; yet, to date, the reported results have been disappointing.

Therefore, a need remains to improve panel-based advertising experimentation. Basic issues such as the appropriateness of the test design, the analysis, and even the unit of measurement (disaggregate vs. aggregate) must be readdressed to enable experimenters to achieve these objectives:

1.- to evaluate individual advertising strategies accurately, and as an eventual consequence

2.- to derive empirical norms from accumulated test data that may guide them in further decision making.

In chapter 4 an appropriate methodology is developed and tested that allows for a more accurate identification and quantification of the advertising-sales relationship in panel-based experiments. In chapters 5 and 6, this methodology is applied across a representative sample of TMG advertising strategy tests for established national brands, thereby developing guidelines for use in advertising strategy decision making.

Chapter 3

Objectives and Hypotheses.

The purposes of this chapter are, first, by synthesizing the published findings discussed in chapter 2 to identify the objectives of this research, and, second, to define the hypotheses for this research.

3.1. Objectives.

Testing marketing variables involves an experiment in which exogenous conditions are controlled. In this way a quantitative estimate of the relationship between the testing variable and a number of key measures such as sales, penetration and repeat can be made.

With regard to testing advertising strategy, two general systems have traditionally been used: experimental and non-experimental. To date, each approach has identified some general phenomena of the advertising-sales relationship; however, measuring advertising response remains difficult. It has been argued that panel-based experimentation offers greater promise as a reliable method to further investigate the advertising-sales relationship.

While the fundamental objective of testing marketing variables is to reduce risk and to learn how to make better marketing decisions, "industry-wide" learning may have been restricted due to the variety of different methodologies and data sources that have been used. Therefore, it has been difficult to make comparisons between studies. Consequently, a need exists to expand the "knowledge base" derived from the published experimental research to date. For this purpose, a number of TMG advertising strategy tests will be analyzed in order to produce insights and generalizations that have not been obtainable from the results published to date.

First, however, the validity, reliability and sensitivity of testing marketing variables using matched panel-based systems need to be examined. This examination should include such basic issues as design and the appropriateness of the analysis and measurement methodology. For instance, the ability to identify a treatment effect seems to be influenced by the degree of disaggregation of the unit of measurement; that is, individual household purchase data may be more valuable than panel purchase data. Hence, it is necessary to evaluate ways to increase the sensitivity of the testing system either through the use of an analytical methodology or by implementing changes in the design of TMG's system.

To summarize: with respect to using matched panels for testing advertising strategy, two general objectives for this research are defined:

1.- <u>sensitivity</u>: To evaluate the appropriateness, validity and sensitivity of the statistical methodology used in TMG tests and, if necessary, to develop an improved methodology for identifying and measuring a response to a change in advertising strategy.

2.- <u>empirical norms</u>: To compare and to contrast the empirical findings of a sample of TMG advertising strategy tests in order to add to industry-wide knowledge upon which advertising decision-making can be based.

3.2. Hypotheses.

3.2.1. Hypotheses Relating to Sensitivity.

The basic objective of a methodology for analyzing TMG's advertising strategy tests is to be able to identify and quantify an advertising effect. First an investigation into the appropriateness of different methodologies will be made by comparing them from a theoretical and practical point of view. On this basis, one methodology can be selected that is both sensitive and theoretically sound.

Subsequently, by applying this methodology to a number of randomly chosen product categories in different test cities, it can be determined, (a) if this ability to identify an effect differs for each product category, and (b) if scanner cities are more or less sensitive than diary cities. If indeed TMG's sensitivity can be estimated and differs for each product category, an investigation into the cause(s) of this variability can then be undertaken. This understanding may allow for a prediction of the sensitivity for any particular product/city test combination and may help the experimenter assess, a priori, the likelihood of achieving the test objectives. For example, if a 50% change in sales between the test and control panels is needed to be 80% certain that the change was not due to chance, the experimenter may decide that in that specific category it would be impossible to cause such a significant change and, therefore, not execute the test.

Figure 3.1. shows the sequence of the hypothesis testing as it relates to sensitivity.

Sequence for Hypothesis Testing:
Sensitivity

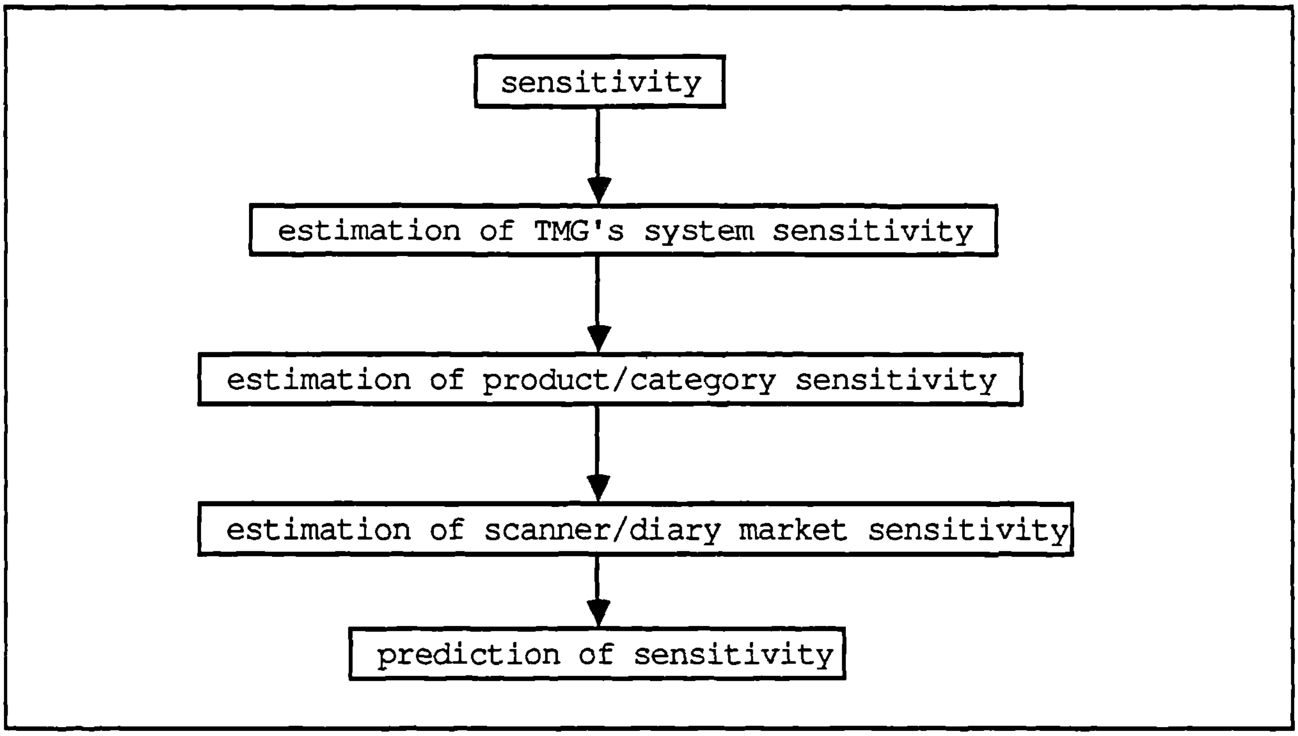


figure 3.1.

Hence, for any typical advertising strategy test under consideration, the hypotheses relating to sensitivity are that:

H1.0. TMG's system sensitivity can be estimated.
H1.1. TMG's system sensitivity cannot be estimated.

H2.0. TMG's system sensitivity is identical for each product/category.
H2.1. TMG's system sensitivity is different for each product/category.

H3.0. TMG's scanner and diary systems are equally sensitive testing systems.

H3.1. TMG's scanner and diary systems are not equally sensitive testing systems.

H4.0. TMG's system sensitivity can be predicted.

H4.1. TMG's system sensitivity cannot be predicted.

3.2.2. Hypotheses Relating to Empirical Norms.

Once the methodology for analyzing strategy tests has been selected, it can be applied to a number of TMG tests. The purpose of using one methodology consistently across a number of tests is to be able to compare and contrast the results of advertising weight and copy tests. In this way an attempt can be made to understand the effect(s) changes in advertising strategy may have on certain product categories and to arrive at generalizations about this response. To date, as was argued in chapter 2, it has been difficult to make such a comparison because the published results are based on different methodologies and data sources.

Information generated from this historical database may complement the empirically based knowledge discussed in chapter 2. For instance, what is the overall probability of observing an effect in advertising strategy tests? Does the probability of observing an effect at the aggregate panel level ("panel effect") differ from the probability of observing an effect at a disaggregate level? Does this differ for copy and weight tests? What is the average magnitude of effect and is this dependent on the level of advertising weight? Also, do changes in advertising strategy affect the amount consumers buy? Thus, the issues addressed in this empirical investigation are:

1.- the probability of observing an effect at different levels of aggregation;
2.- the average magnitude of an effect;
3.- the possibility of predicting an effect, and
4.- how the effect manifests itself (changes in penetration of the brand, in repeat or in the amount people buy)?

Figure 3.2. shows the sequence of the hypothesis testing as it relates to the investigation into empirical norms.

Sequence for Hypothesis Testing:
Empirical Norms

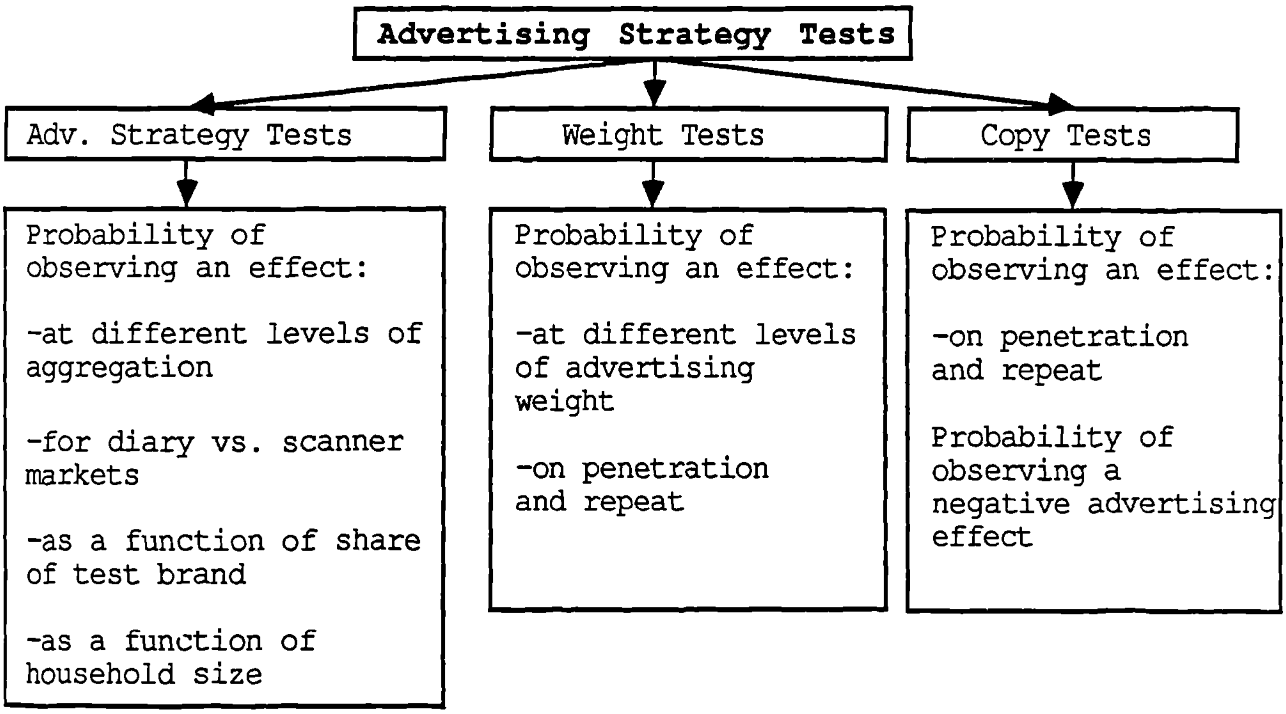


figure 3.2.

Based on a sample of TMG's <u>advertising strategy tests</u> it is hypothesized that:

H5.0. The probability of an advertising strategy change to cause a panel effect* is less than 50%.

H5.1. The probability of an advertising strategy change to cause a panel effect* is equal to or greater than 50%.

H6.0. The probability of an advertising strategy change to cause an effect at a disaggregate level** is less than 50%.

H6.1. The probability of an advertising strategy change to cause an effect at a disaggregate level** is equal to or greater than 50%.

H7.0. The probability of an advertising strategy change to cause a panel effect* differs for tests conducted in diary cities vs. those conducted in scanner cities.

H7.1. The probability of an advertising strategy change to cause a panel effect* does not differ for tests conducted in diary cities vs. those conducted in scanner cities.

H8.0. The probability of an advertising strategy change to cause a panel effect* is a functior of the share of the test brand.

H8.1. The probability of an advertising strategy change to cause a panel effect* is not a function of the share of the test brand.

H9.0. The probability of an advertising strategy change to cause a panel effect* is a function of the household sample size.

H9.1. The probability of an advertising strategy change to cause a panel effect* is not a function of the household sample size.

Based on a sample of TMG's weight tests, it is hypothesized that:

H10.0. Advertising weight increases equal to or less than 100% have less than a 50% probability of causing a panel effect*.

H10.1. Advertising weight increases equal to or less than 100% have a 50% or higher probability of causing a panel effect*.

H11.0. The probability of an advertising weight test testing zero vs. any advertising to cause a panel effect* is greater than the probability for weight tests testing non-zero based advertising.

H11.1. The probability of an advertising weight test testing zero vs. any advertising to cause a panel effect* is equal to or smaller than the probability for weight tests testing non-zero based advertising.

H12.0. Changes in advertising weight cause equal or larger panel effects* than changes in copy strategy.

H12.1. Changes in advertising weight cause smaller panel effects* than changes in copy strategy.

H13.0. If a change in advertising weight causes a panel effect* it is more likely to influence the number of consumers repeating (repeat) than the number of consumers buying (penetration).

H13.1. If a change in advertising weight causes a panel effect* it is more likely to influence the number of consumers buying (penetration) than the number of consumers repeating (repeat).

Based on a sample of TMG's <u>copy tests</u>, it is hypothesized that:

H14.0. Changes in advertising copy*** have less than a 50% probability of causing a panel effect*.

H14.1. Changes in advertising copy*** have a probability of causing a panel effect* equal or greater than 50% .

H15.0. The probability of a change in copy strategy to cause a negative effect is equal to or greater than that for weight tests.

H15.1. The probability of a change in copy strategy to cause a negative effect is less than that for weight tests.

H16.0. A change in copy strategy is more likely to influence the number of consumers repeating (repeat) than the number of consumers buying (penetration).

H16.1. A change in copy strategy is more likely to influence the number of consumers buying (penetration) than the number of consumers repeating (repeat).

* Panel effect: effect on the test brand's volume identified at the aggregate panel level.

** An effect at a disaggregate level: effect on the test brand's volume identified at the disaggregate level such as effects on triers, repeaters, or amount bought.

*** Advertising copy tests: only those copy tests testing an "old" against a "new" copy strategy.

Chapter 4 will address the theoretical issues, propose a methodology to analyze TMG test data, and report on the findings (objective 1). In chapters 5 and 6 this methodology will be applied to a number of TMG advertising strategy tests and resulting empirical findings will then be discussed (objective 2). In chapter 7 some implications of these empirical results for the advertising management of established brands and the improvement of the TMG system will be discussed (objective 3). Further research on TMG's system will also be proposed. In Appendix I, this research will be carried out and the findings discussed.

Chapter 4

Sensitivity

4.1. Introduction and Hypotheses.

The advances made in modeling in conjunction with sophisticated panel-based testing systems have led to a number of published studies (see, for instance, Little, 1979; Winer, 1980; Zufryden, 1981; Raj, 1982). Unfortunately, as has been argued, few generalizations have evolved that allow a manager to predict, a priori, what will be the effect of a new marketing action. Consequently, managers must continue to estimate subjectively the effects of particular actions on buyer behavior. Also, numerous influences outside the control of the firm introduce enough "noise" that detection of these effects is difficult even with a careful design and analysis. As was hypothesized in chapter 2, the rather mediocre results of advertising weight or copy experiments using consumer panels could be due to the presence of one or both of two major phenomena: a) the lack of sensitivity in the testing system, and b) the lack of brand response to the level or type of change that was administered.

The purpose of this chapter is to investigate the former phenomenon in order to be able to address the latter. Clearly, it is the ability to estimate the effect that can lead to an assessment of the degree to which brands respond to changes in advertising strategy. Furthermore, once this understanding has been obtained, generalizations can be made regarding the market response to these advertising strategy changes for different brands and categories. Such generalizations are the objectives of chapters 5 and 6.

In this chapter, certain hypotheses relating to sensitivity will be tested by assessing the methodology presently being used to analyze advertising strategy experiments, and, if necessary to develop and test alternative methodologies. These hypotheses are:

H1.0. TMG's system sensitivity can be estimated.
H1.1. TMG's system sensitivity cannot be estimated.

H2.0. TMG's system sensitivity is identical for each product/category.
H2.1. TMG's system sensitivity is different for each product/category.

H3.0. TMG's scanner and diary systems are equally sensitive testing systems.
H3.1. TMG's scanner and diary systems are not equally sensitive testing systems.

H4.0. TMG's system sensitivity can be predicted.
H4.1. TMG's system sensitivity cannot be predicted.

The testing of these hypotheses will be followed by the application of one of these methodologies, the store model, to a number of data sets from periods when no testing was administered, to arrive at conclusions regarding the degree of sensitivity within TMG's matched panel testing system.

4.2. Different Methodologies.

Using TMG's basic unit of data, the individual household's purchase quantity of a brand during a given week, it may be assumed that this purchase quantity is influenced by a vector of independent factors X plus a random error, i.e.,

$$Y_{(ijt)} = X_{(ijt)}\ b + E_{(ijt)},$$

where,

$Y_{(ijt)}$ is the purchase quantity of the brand for household i in panel j at time t,

b is a vector of weights,

$E_{(ijt)}$ is the unexplained variation.

The need to include specific elements in X when modeling purchase behavior will vary from brand to brand, although one element will always be whether the family received the treatment, that is, test panelists vs. control panelists. The inclusion of other factors depends on a priori theory, the availability of data and the level of aggregation being used. To simplify the following discussion, attention will be given only to the specific design variables (e.g., period, panel or treatment), and standard covariate-type variables (e.g., number of members in the household or price paid) will be ignored. Furthermore, analysis of variance terminology will be used rather than regression terminology, which is used in most published sales-advertising response studies (see, for instance, Clarke, 1976 or Little, 1979), since in designs with mixed variables (between and within household or store), an ANOVA framework permits more direct specification of proper error terms for testing treatment effects.

The simplest conceptualization of the model used for analysis, regardless of the level of aggregation, is to consider only two elements in the vector X, these being panels (i.e., test vs. control) and weeks. This is a basic two-factor design in which the impact of an advertising test is assessed by examining panel differences across weeks of the test. This is a classic posttest only design. However, the availability of pretest data suggests at least three other methods for assessing test impact. The first is to calculate gain scores by subtracting the pretest from the posttest and to test the panel effect by comparing the gain scores. A second alternative is to consider pretest vs. posttest as an additional factor in the basic model. The effects of the advertising treatment could then be determined by testing the interaction between panels and pretest vs. posttest. This is statistically equivalent to testing the gain score panel effect. Finally, the pretest measure can be treated as a covariate and classical analysis of covariance procedures can be used.

The choice of how to use pretest measures depends on a number of factors, some of which are pragmatic and some of which are statistical. With regard to the former, non-statisticians can more easily understand pre-post gain scores than the adjusted posttest scores resulting from analysis of covariance. With regard to the latter, pre-post gain scores are shown to be potentially biased measures (see figure 4.2.) of the impact of the advertising strategy and normally yield error terms that are less sensitive. This will be further discussed in section 4.3.1.

4.3. Level of Aggregation.

To facilitate comparisons between models based on different levels of aggregation, a discussion of the simplest basic model, that is, the two-factor (panels and weeks) posttest only model, will be presented.

It can be recalled from section 2.4.1. that the TMG system relies on "fixed" panels. That is, panelists are permanently assigned to either the A or B panel. When either an A or a B panelist drops from the system a replacement strategy is used that maintains panel balance by recruiting a new member on the basis of store shopping behavior and key demographic variables. Either the A or B panel can be used as the test or control panel, which are determined randomly. In other testing systems such as Information Resources, Inc.'s BehaviorScan, "flexible" panels are being used. Here TV signals can be controlled for each individual panelist, thereby allowing the experimenter to define the make-up of the panels differently for each test, using, for example, pre-test information such as brand or category volume bought for each household as a matching criterion.

4.3.1. Panel Level Analysis.

Brand managers are generally interested in the overall effects of an advertisement on a representative set of consumers. Since there may be little interest in individual household level response, one strategy for analyzing the data is to ignore individual level reactions to the treatment and aggregate the data to the panel level at each time period. One thereby reduces computational costs and simplifies the task of communicating the results to non-quantitatively oriented managers. Determination of the advertising effect can be made by comparing the differences in the average purchase behavior across the two panels.

In order to determine the statistical significance of the difference between panels, it is necessary to estimate the variance of this difference. There are a number of ways to do this. The two ways most often used in commercial applications are a) an ANOVA with repeated measures across weeks on each panel (see figure 4.1.) with the dependent variable being the total weekly panel brand volume, or b) calculating the sample variance of the repeated difference measures about the average difference. In the former case statistical significance is determined by an F test, under the assumption of no interaction between weeks and panel, while in the latter a "paired" t-test is performed. However, as McGuire (1977) has pointed out, these two test statistics are not distributed as hypothesized if the "random disturbances" (i.e., variations in brand purchases) within a household are correlated over time.

insert figure 4.1. here

The general procedure used in TMG to determine if the paired-t statistic followed a t-distribution was to choose a product category for which no test had been conducted during a 26-week period. All the panelists were first "thrown" into one pool, forming a population of

Panel Level Model

PERIOD

		1	2	3	4.......J
PANEL	A.)	$\boxed{X_1}$	$\boxed{X_2}$	$\boxed{X_3}$	$\boxed{X_4}$ ......X_{1J}
	B.)	$\boxed{X_{21}}$	$\boxed{X_{22}}$	$\boxed{X_{23}}$	$\boxed{X_{24}}$ .....X_{2J}

Where X_{ij} = brand volume for panel i in period j

Source of Volume	df	Expected Mean Squares	F
Panels	(a-1)	$\sigma^2_e + b\sigma^2 A$	MS_A/MS_{AB}
Periods	(b-1)	$\sigma^2_e + \sigma^2 AB + a\sigma^2_B$	
Panels x Periods	(a-1)(b-1)	$\sigma^2_e + \sigma^2_{AB}$	

figure 4.1.

potential households for panel formation. Then random samples of households were drawn to form two separate panels, of fifty households each. The purchase histories for these two panels were analyzed via the paired-t statistic. This procedure of drawing random samples of panels and calculating the appropriate test statistics based on the particular panel purchase histories was repeated over seven thousand times for each of a number of categories. The results of an analysis for one brand are displayed in figure 4.2.

insert figure 4.2. here

As can be seen, the proportion of time the paired-t statistic exceeded a given theoretical value was dramatic. Thus, for example, the proportion of time the test statistic should exceed the value of 2.2 is five percent, yet the simulation results indicate that the value was exceeded thirty-five percent of the time. These findings are disturbing in that they indicate the possibility of a significant positive bias, that is, a tendency to infer that an advertising treatment had an effect on the population when in fact it didn't (type I error).

4.3.2. Individual Level Analysis.

An alternative to panel level analysis is to operate at the individual household level (see figure 4.3.).

insert figure 4.3. here

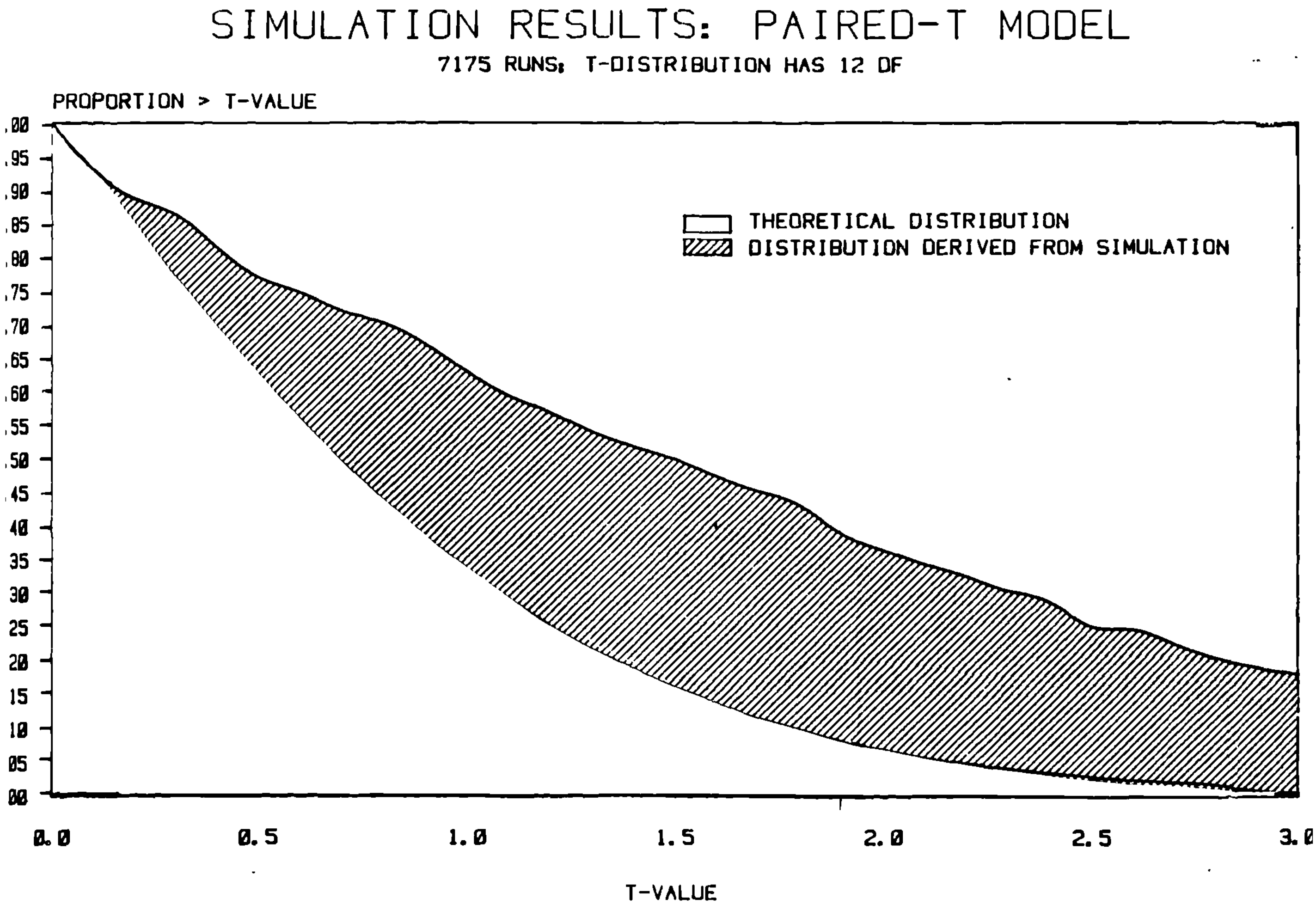

SIMULATION RESULTS: PAIRED-T MODEL
7175 RUNS; T-DISTRIBUTION HAS 12 DF
PROPORTION > T-VALUE
THEORETICAL DISTRIBUTION
DISTRIBUTION DERIVED FROM SIMULATION
T-VALUE

figure 4.2.

Individual Level Model

		PERIOD				
		1	2	3	4	J
PANEL	A.)	X_{111} X_{112} . . . X_{11K}	X_{121} X_{122} . . . X_{12K}	X_{131} X_{132} . . . X_{13K}	X_{141} X_{142} . . . X_{14K}	X_{1J1} X_{1J2} . . . X_{1JK}
	B.)	X_{211} X_{212} . . . X_{21K}	X_{221} X_{222} . . . X_{22K}	X_{231} X_{232} . . . X_{23K}	X_{241} X_{242} . . . X_{24K}	X_{2J1} X_{2J2} . . . X_{2JK}

Where X_{ijK} = brand volume for household K in panel i for period j

Source of Variance	df	Expected Mean Squares	F
Between-households	an-1		$MS_A/MS_{H/A}$
Panels	(a-1)	$\sigma^2_e + b\sigma^2_{H/A} + nb\sigma^2_A$	
Household/Panels	a(n-1)	$\sigma^2_e + b\sigma^2_{H/A}$	
Within-households	an(b-1)		
Weeks	(b-1)	$\sigma^2_e + \sigma^2_{HB/A} + na\sigma^2_B$	$MS_B/MS_{HB/A}$
Weeks/Panels	(a-1)(b-1)	$\sigma^2_e + \sigma^2_{HB/A} + n\sigma^2_{AB}$	$MS_{AB}/MS_{HB/A}$
Households x Weeks/Panels	a(n-1)(b-1)	$\sigma^2_e + b\sigma^2_{HB/A}$	

Note: / denotes nesting

figure 4.3.

An advantage of such an approach is that it allows the inclusion of numerous factors unique to the individual household such as formed preferences for the brand as well as store level factors (e.g., specific store level price or promotional activity). The drawback, of course, is the increased computational costs and difficulties of communicating the analysis and findings to general management.

Before discussing the specific models used to analyze household level data, it is useful to explore the correspondence between this level of aggregation and that at the panel level. The general design at the household level can be thought of as a mixed design involving one between-households variable (panels) and one within-households variable (weeks). In order to estimate the appropriate error term to test the advertising effect (that is, the significance of the panel factor), the total sum of squares is partitioned into a number of orthogonal components (see figure 4.3.). As can be seen from this, the appropriate error term associated with the panel factor is the mean square for error of households within panels ($MS_{H/A}$). Thus, the size of the error term for testing panel effects ($MS_{H/A}$) depends on 1) the average variance of households within weeks and panels, and 2) the correlation of household scores between weeks within panels. To the extent that households greatly differ in their total scores (within panels), panel differences are more likely to be attributed to chance. Likewise, if each household's deviation from the weekly panel average tends to be positively correlated across weeks, the panel differences will be harder to detect since each repeated observation on the household provides somewhat redundant information.

This covariance term becomes especially interesting when comparing a "panel" level analysis and a "household" level analysis. In terms of derivations based on expected values and assuming σ^2 AB=0, it can be shown that

$$SE_{(H)} = SE_{(P)} \times \sqrt{(1+eq/1-e)}$$

where,

$SE_{(H)}$ = standard error from individual household level model,

$SE_{(P)}$ = standard error from panel level model,

q = number of weeks,

e = average correlation between weeks (pooled across panels).

Thus, to the extent that a positive correlation exists between scores from period to period at the household level, the estimate of sensitivity will be higher (less sensitive) for the household level model. Most TMG studies examined to date show e to be positive. Correlations are high (.50-.70) for products that are consistently purchased by the same group of households; an example of these products would be pet foods. Correlations are low (.10 - .20) for infrequently but universally purchased products such as household cleaning products. This may also explain the positive bias observed for the panel level analysis in section 4.3.1. and confirms McGuire's (1977) observation that the test statistic t is not distributed as postulated "if the random disturbances within a family are correlated over time".

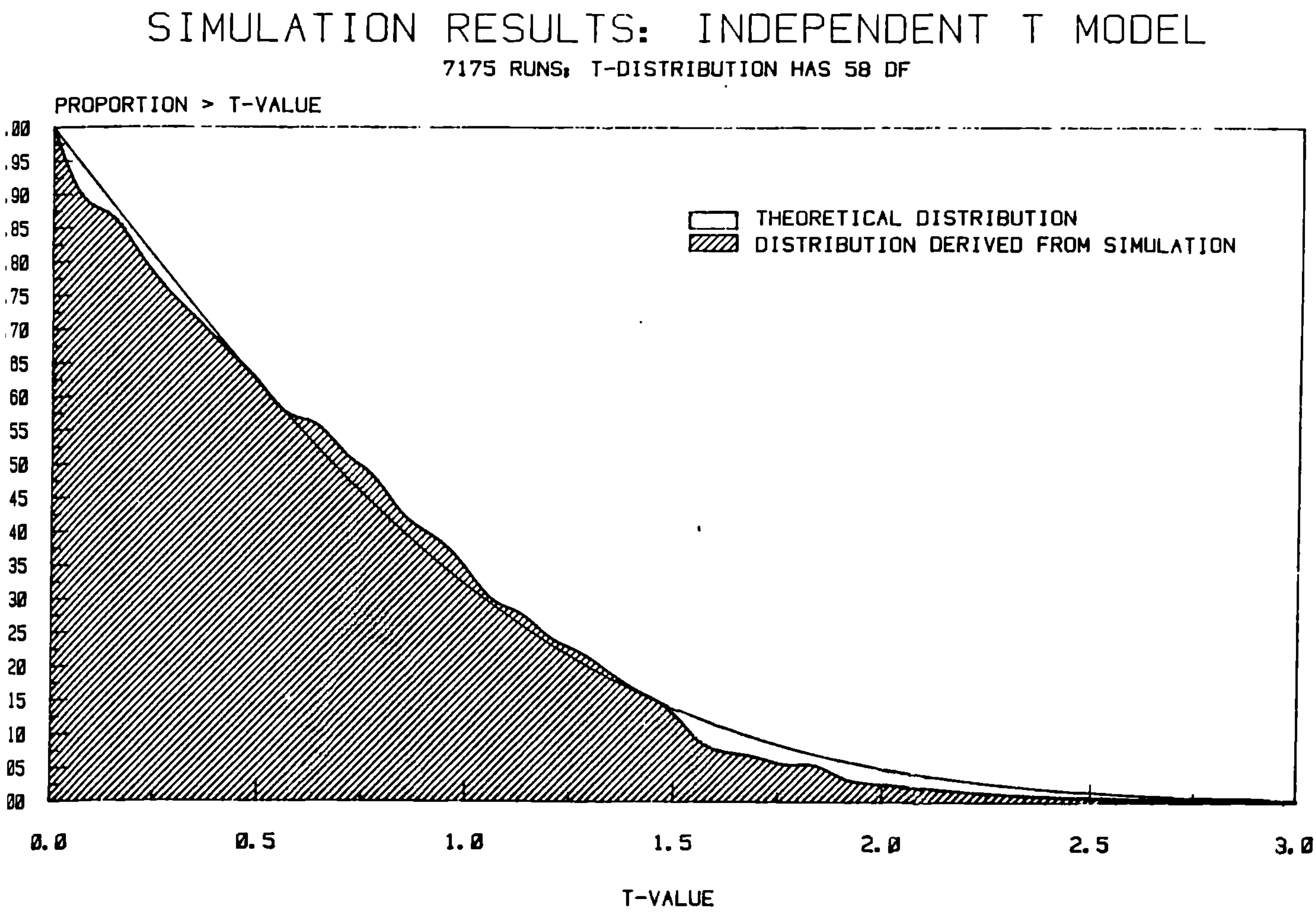
Regarding analyses performed at this disaggregate level, two major conclusions can be drawn.

1.- The household level model does not appear to be positively biased; in fact, it can be shown (see figure 4.4.) that this model is performing as one would expect based on the theoretical distribution of the test statistic (as opposed to the paired-t model).

insert figure 4.4. here

2.- The household level model produces higher sensitivity levels; this means that a larger difference between panels has to be observed in order to be certain, at the same risk level, that this was a significant change due to the treatment.

The household level model is one of the three methodologies being considered for analysis of TMG tests, the other two being the panel and the store model. In order to reduce error (increase sensitivity) covariates are included in the model. Average pretest brand volume for each individual household can be calculated and has proved to be an effective covariate in past TMG analyses. Most TMG models also include additional covariates associated with posttest conditions. Their selection for any particular brand analyzed is guided by marketing theory, parsimony, the availability of the data and the empirical evidence on the degree to which they have decreased the unexplained variance in the past. For instance, in an advertising strategy test for disposable diapers, the presence of children under the age of three may prove to be an effective covariate. Although the list of likely candidates for inclusion is large, including such



SIMULATION RESULTS: INDEPENDENT T MODEL
7175 RUNS; T-DISTRIBUTION HAS 58 DF
PROPORTION > T-VALUE
THEORETICAL DISTRIBUTION
DISTRIBUTION DERIVED FROM SIMULATION
T-VALUE

figure 4.4.

measures as price, dealing and household characteristics, the only posttest covariate that consistently contributes to reducing the error variance is the household's product class purchase volume. In subsequent discussion of the results, this is the only variable used as a posttest covariate. It should be noted that using posttest product class purchase volume as a covariate implicitly assumes that the advertising treatment has no effect on the total volume of the product class purchased, but instead affects only the market share within the product class. However, as long as such an assumption holds, inclusion of this category volume variable has a major impact on the ability to accurately assess small changes in sales, since this posttest covariate provides considerable information on the otherwise unpredictable pattern of household consumption (and purchase) of the category. Moreover, in chapters 5 and 6, it will be shown that evidence exists that changes in advertising strategy can have an effect on total category consumption. Hence, a need exists to remove this effect before the brand share covariate is calculated since it can influence the assessment of the test effect. Conceivably, this calculation, although not part of this dissertation, can be made by using a two-stage least square model.

4.3.3. Store Level Analysis.

The third level of aggregation investigates at the store level (see figure 4.5.).

figure 4.5.

Store Level Model

PERIOD

PANEL			1	2	3	4.........	J
	A STORE	1	X_{111}	X_{121}	X_{131}	X_{141}	X_{1J1}
		2	X_{112}	X_{122}	X_{132}	X_{142}	X_{1J2}
		.	.	.	.	. ...	.
		K	X_{11K}	X_{12K}	X_{13K}	X_{14K}	X_{1JK}
	B STORE	1	X_{211}	X_{221}	X_{231}	X_{241}	X_{2J1}
		2	X_{212}	X_{222}	X_{232}	X_{242}	X_{2J2}
		.	.	.	.	. ...	.
		K	X_{21K}	X_{22K}	X_{23K}	X_{24K}	X_{2JK}

Where X_{ijK} = brand volume for panel i in store K for period J.

Source of Volume	df	Expected Mean Square	F
C (Stores)	(c-1)	$\sigma^2_e + ab\sigma^2_C$	
A (Panels)	(a-1)	$\sigma^2_e + b\sigma^2_{AC} + bc\sigma^2_A$	$\frac{MS_A}{MS/_{AC}}$
B (Periods)	(b-1)	$\sigma^2_e + a\sigma^2_{BC} + ac\sigma^2_B$	
AC	(a-1)(c-1)	$\sigma^2_e + b\sigma^2_{AC}$	
AB	(a-1)(b-1)	$\sigma^2_e + \sigma^2_{ABC} + c\sigma^2_{AB}$	
BC	(b-1)(c-1)	$\sigma^2_e + a\sigma^2_{BC}$	
ABC	(a-1)(b-1)(c-1)	$\sigma^2_e + \sigma^2_{ABC}$	

Conceptually, store level analyses can be viewed as experiments for which households in each panel are randomly assigned to stores. However, unlike experiments discussed in standard design (see, for instance, Winer, 1971), households cannot be restricted to making all their purchases from one store. The practice of cross-store shopping means that the underlying units being measured across weeks cannot be assumed to be identical, but instead must be viewed as weekly random samples. The TMG analytical procedure uses total test brand purchases by a panel within a store during a week as a dependent variable.

The reason for modeling at the store level is that many of the exogenous factors felt to affect behavior occur at the store level. For instance, in-store displays and specific price levels are unique to a store. Now that scanner data are available at the store level, effects of such factors can be captured via the aggregate shopping behavior of the non-panelists. Even without these aggregate store level data, it is possible to create store level variables based on the records for all panel households shopping in the store for a given week. Such variables may be useful as covariates. Baumgardner et al. (1983) and Eskin and Totten (1983) both suggested that these store level analyses represent very recent analytical efforts. However, to date, the statistical validity of this model with total test brand purchases by panel within a store as the dependent variable has not been fully determined. A major finding, though, is the fact that the modeling at this level showed gains in statistical sensitivity and that there has been no evidence to date that suggests any strong negative or positive bias in tests of treatment effects.

4.4. Tests.

4.4.1. Measurement Approach.

The sensitivity of each of the three models - panel, household and store - was tested using TMG system data. Although the results reported are specific to this particular system, the methodology developed for determining the sensitivity can be generalized to other systems.

The basic approach was to develop a means of assessing system sensitivity prior to any "treatment" being administered to either of the panels (Hypotheses H1 and H2). Purchase records for a given brand were analyzed to determine the magnitude of the error associated with a test of the advertising (panel) factor. The magnitude of the error then determines system sensitivity or lack of it. The larger the error, the less sensitive the system.

The specific approach used was as follows. First product classes were selected for which TMG had at least fifty-two weeks of consecutive purchase history data during which no advertising tests were being conducted. Since there was no special activity, all the variability in the data can be attributed to normal environmental conditions. It is this "normal" variablity that was used to measure sensitivity.

Operationally, sensitivity was quantified as follows. The fifty-two weeks were divided into twenty-six "pretest" and twenty-six "posttest" weeks. The first twenty-six "pretest" weeks were used to calculate a pretest brand covariate. The last twenty-six "posttest" weeks were used to simulate the test.

Sensitivity was operationalized in general form by the standard error of the difference in adjusted panel means:

$$SE = \sqrt{(2\ MSE'/n\ w)} \div V$$

where,

MSE' = adjusted mean square error between households or stores,
n = number of households or stores in each panel,
w = number of weeks, projected to a standard 52-week test,
V = the average weekly brand volume per household or store.

Sensitivity was specified for a given risk level using an appropriate t-value:

$$\text{LSD (Least Significant Difference)} = t \times SE.$$

The LSD can be interpreted as the percent difference in panel brand volume that must be obtained to yield significance for a given risk level.

As was noted earlier, the panel level analysis yields biased results since it underestimates the variation. This is due to the fact that the random error term for a household is correlated across weeks. The table below (table 4.1.) compares LSD's of four branded grocery products for the three levels of aggregation using an 80%, 2-tailed t value:

	Level of Aggregation		
	Household	**Store**	**Panel**
Product A	±6.7%	±4.3%	±3.0%
Product B	13.6	9.2	7.4
Product C	4.2	3.8	3.0
Product D	6.2	4.6	4.2

table 4.1.

For each product, the panel level model yielded the lowest LSD. In subsequent discussion, however, only the household level model and the store level model will be compared since the potential bias associated with the panel models precludes their use as a standard methodology.

4.4.2. Test Results.

To investigate the sensitivity of the store model, LSD's were calculated for sixty-nine different brands from thirteen different product classes including coffee, toothpaste, cake mix, cooking oil, dishwashing detergent, bar soap, bath tissue, dessert and main meal, pet food, specialty mixes, mouthwash and shampoo. The data used were collected in six different cities during 1982 and 1983. Forty-four studies were conducted in scanner markets, twenty-four in diary markets and one combined scanner and diary market. The choice of these data sets was determined by the availability of store level data. In diary markets these data were not available until April 1981, at which time store codes were included in the diary.

In scanner markets store codes were available from the beginning of the start-up of the panels. Hence, more scanner-product combinations were available. Tables 4.2. through 4.12. display the results. Appendix III shows the BMDP2V output for two brands.

insert tables 4.2. - 4.12. here

Overall, the median LSD was found to be ±7.4%, that is, for one half of the brands, changes of 7.4% in sales would be found to be significant 80% of the time (see table 4.13.). The overall range was from ±4 to ±20%. Only three cases showed sensitivities higher than ±15%. Likely contributing factors to these relatively higher sensitivities were the low market share for the brand and the extreme seasonality (these issues will be further explored later). Seventy-eight percent of the cases had sensitivity levels less than ±10% and 43% of the cases had sensitivity levels of ±6% or less. Seventy-one percent of the cases cluster between ±5% and ±9%. Since sensitivity levels were different for each product/category, Hypothesis H2.0. was rejected. No differences were found between diary (6.6%) and scanner (6.8%) city-product combinations (see table 4.14.). Hence, Hypothesis H3.1. was rejected.

insert tables 4.13. and 4.14 here

Coffee

	Share (%)	Sensitivity Level (%)
Total Maxwell House[1]		
Portland Scanner Market	21	±6.4
Quad Cities Diary Market	8	±5.5
Evansville Scanner Market	22	±6.5
Total Sanka Coffee[1]		
Portland Scanner Market	10	±6.5
Quad Cities Diary Market	8	±5.8
Regular Sanka Coffee[2]		
Portland Scanner Market	5	±14.0
Quad Cities Diary Market	7	±10.2
Instant Sanka Coffee[3]		
Portland Scanner Market	13	±7.4
Quad Cities Diary Market	10	±8.5
Instant Taster's Choice Coffee[3]		
Portland Scanner Market	9	±5.6

[1] Category defined as total regular, instant, and substitute coffee.
[2] Category defined as total regular coffee.
[3] Category defined as total instant and substitute coffee.

table 4.2.

Toothpaste

	Share (%)	Sensitivity Level (%)
Crest Toothpaste[1]		
Quad Cities Diary Market	37	±6.3
Bakersfield Diary Market	40	±5.8
Charleston Diary Market	37	±4.9
Portland Scanner Market	35	±4.2
Orlando Scanner Market	34	±5.0
Evansville Scanner Market	40	±4.6
Colgate Toothpaste[1]		
Portland Scanner Market	24	±4.5
Aim Toothpaste[1]		
Portland Scanner Market	17	±6.7

[1] Category defined as total toothpaste and tooth powder.

table 4.3.

Cake Mix

	Share (%)	Sensitivity Level (%)
Duncan Hines Layer Cake Mix[1]		
Portland Scanner Market	25	±7.8
Orlando Scanner Market	31	±7.8
Bakersfield Diary Market	46	±6.0
Pillsbury Layer Cake Mix[1]		
Portland Scanner Market	20	±13.4
Betty Crocker Layer Cake Mix[1]		
Portland Scanner Market	28	±6.5

[1] Category defined as total layer cake mixes.

table 4.4.

Cooking Oil

	Share (%)	Sensitivity Level (%)
Crisco Oil[1]		
Portland Scanner Market	26	±4.3
Quad Cities Diary Market	33	±5.7
Wesson Oil[1]		
Portland Scanner Market	7	±10.3
Quad Cities Diary Market	11	±7.3

[1] Category defined as total cooking and salad oils.

table 4.5.

Dishwashing Detergents

	Share (%)	Sensitivity Level (%)
Ivory[1]		
Portland Scanner Market	16	±7.7
Quad Cities Diary Market	9	±6.8
Palmolive[1]		
Portland Scanner Market	17	±7.1
Quad Cities Diary Market	12	±8.8
Dermassage[1]		
Portland Scanner Market	3	±14.8
Quad Cities Diary Market	5	±9.0

[1] Category is defined as total light duty (liquid) detergents.

table 4.6.

Bar Soaps

	Share (%)	Sensitivity Level (%)
Ivory[1]		
Portland Scanner Market	27	±5.3
Bakersfield Diary Market	12	±10.9
Charleston Diary Market	12	±9.4
Quad Cities Diary Market	6	±11.6
Dial[1]		
Portland Scanner Market	22	±6.7
Dove[1]		
Portland Scanner Market	5	±10.4

[1] Category is defined as total hand and bath soaps.

table 4.7.

Bath Tissue

	Share (%)	Sensitivity Level (%)
Charmin[1]		
Portland Scanner Market	12	±3.7
Charleston Diary Market	31	±5.9
White Cloud[1]		
Portland Scanner Market	12	±7.2
Charleston Diary Market	12	±8.4
Scott[1]		
Charleston Diary Market	4	±18.2
Cottonelle[1]		
Charleston Diary Market	13	±8.2

[1] Category is defined as total toilet tissue.

table 4.8.

Dessert and Main Meal

	Share (%)	Sensitivity Level (%)
Stove Top Stuffing[1]		
Portland Scanner Market	32	±5.8
Shake 'N Bake[2]		
Portland Scanner Market	66	±7.0
Jello Pudding[3]		
Portland Scanner Market	33	±4.0
Cool Whip[4]		
Portland Scanner Market	61	±8.5

1 Category is defined as total stuffing mixes.

2 Category is defined as total breading and batter mixes.

3 Category is defined as total pudding (dry grocery).

4 Category is defined as total refrigerated and frozen toppings.

table 4.9.

Pet Foods

	Share (%)	Sensitivity Level (%)
Nine Lives Canned Cat Food[1]		
Combined Portland/Evansville Scanner Markets	23	±4.7
Combined Orlando/Evansville Scanner Markets	13	±6.4
Combined Portland/Orlando Scanner Markets	20	±4.7

[1] Category is defined as total canned, dry, and semi-moist catfood.

table 4.10.

Specialty Mixes

	Share (%)	Sensitivity Level (%)
Duncan Hines[1]		
Portland Scanner Market	35	±6.3
Orlando Scanner Market	47	±6.0
Bakersfield Diary Market	22	±7.0

[1] Category is defined as total cookies, brownies, and muffin mixes.

table 4.11.

Mouthwash and Shampoo

	Share (%)	Sensitivity Level (%)
Scope Mouthwash[1]		
Combined Orlando/Evansville Scanner Markets	30	±10.2
Combined Portland/Evansville Scanner Markets	34	±8.9
Combined Portland/Orlando Scanner Markets	28	±9.4
Combined Portland/Charleston Scanner and Diary Markets	30	±8.6
Head and Shoulders Shampoo[2]		
Orlando Scanner Market	8	±12.3
Evansville Scanner Market	10	±9.5
Portland Scanner Market	7	±9.8

[1] Category is defined as total mouthwash.
[2] Category is defined as total shampoo.

table 4.12.

Frequency Distribution of 69 Sensitivity Cases

80% 2-Tailed Sensitivity Level	Frequency	Cumulative Frequency	% Cumulative Frequency
±4%	5	5	7
5	6	11	16
6	19	30	43
7	9	39	57
8	8	47	68
9	7	54	78
10	5	59	86
11	2	61	88
12	2	63	91
13	1	64	93
14	1	65	94
15	1	66	96
16			
17			
18	2*	68	99
19			
20	1*	69	100
TOTAL	69		

Median: ±7.4%

* Scott - Charleston - 18.2% (4% share)
Sweetened Country Time - Portland - 19.6% (16% share)
Sweetened Country Time - Evansville - 17.9% (31% share)

table 4.13.

Diary/Scanner Market Pairs[1]

	Diary	Scanner
Drinks	±5.9%	±5.8%
	6.1	8.4
	8.8	19.6
Coffee	5.5	6.4
	5.8	6.5
	10.2	14.0
	8.5	7.4
Toothpaste	6.3	4.2
	5.8	5.0
	4.9	4.6
Cake Mix	6.0	7.8
Cooking Oil	5.7	4.3
	7.3	10.3
Dishwashing Detergent	6.8	7.7
	8.8	7.1
	9.0	14.8
Bar Soap	10.9	5.3
Bath Tissue	5.9	3.7
	8.4	7.2
Specialty Mixes	7.0	6.3
Median	±6.6%	±6.8%

[1] Pairs were obtained on a "Quasi-random" basis rather than on a matched basis.

table 4.14.

Although the 7.4% LSD figure is of interest in terms of assessing the system's overall sensitivity, a more general question is what factors influence system sensitivity. If, indeed, certain factors could be identified, TMG's system sensitivity could be predicted (Hypothesis H4.0.). Since SE is a function of the variance of the model error, sampling theory predicts that the SE should decrease as the number of observations are increased. Clearly, the number of observations is a function of both product category size, that is, the number of people buying the category, and brand share, or the number of people buying the brand; the greater these numbers, the greater the number of observations. A second factor that could potentially influence sensitivity is the type of data collection system used or the city in which the data are collected (in spite of the fact that there did not seem to be a difference between the two systems).

To test these conjectures, an Ordinary Least Squares (OLS) analysis on the following model was run:

$$SE_{(ijk)} = b \sqrt{1/MS_{(ij)}} + D_{(1)} + D_{(2)} \cdots + D_{(6)} + E_{(ijk)}$$

where,

$MS(ij)$ = the market share of brand i in product category j, and

$D_{(k)}$ = a dummy variable for city k.

The results indicate a very good fit with a corrected R^2 of .94. There were no significant differences between the six cities. Thus it may be concluded that the type of data collection system (and city location) has no effect on sensitivity. This supports the conclusion made earlier to reject Hypothesis H3.1. The fact that there is no significant difference between diary and scanner systems has an important implication. Tests for certain products favor the use of one data collection method over the other. For instance, the diary, which covers purchases made in all outlets, including drug stores and mass merchandising, is particularly useful for testing those products which are predominantly sold through these outlets, such as health and beauty aids. Scanner panels are appropriate if the product is primarily sold through grocery stores such as food products. This leaves the experimenter the choice of data collection method without fear for loss of sensitivity.

The coefficient, b, for market share varied across product categories, indicating that sensitivity is influenced by the level of market share for a product. Results for two product categories, bar soap and cooking oil, are shown in figures 4.6. and 4.7.

insert figures 4.6. and 4.7. here

Since differences between product categories reflected category size, a single variable, brand transaction, was used to combine category size and brand share:

Brand Transactions = Category Transaction x Brand Share.

A log model indicated an optimal reciprocal square root relationship, as predicted from sampling theory:

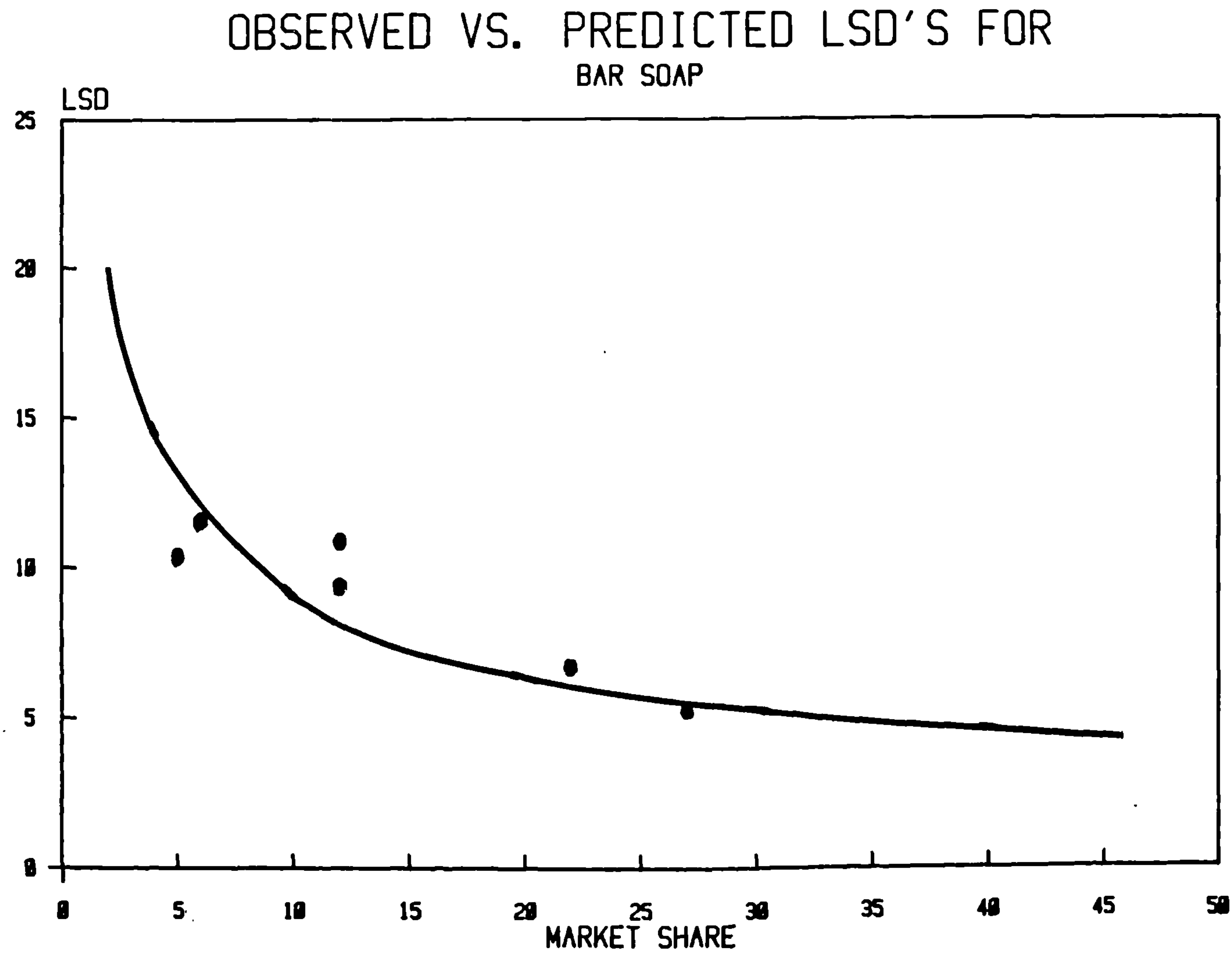

OBSERVED VS. PREDICTED LSD'S FOR
BAR SOAP
LSD
25
20
15
10
5
0
0
5
10
15
20
25
30
35
40
45
50
MARKET SHARE

figure 4.6.

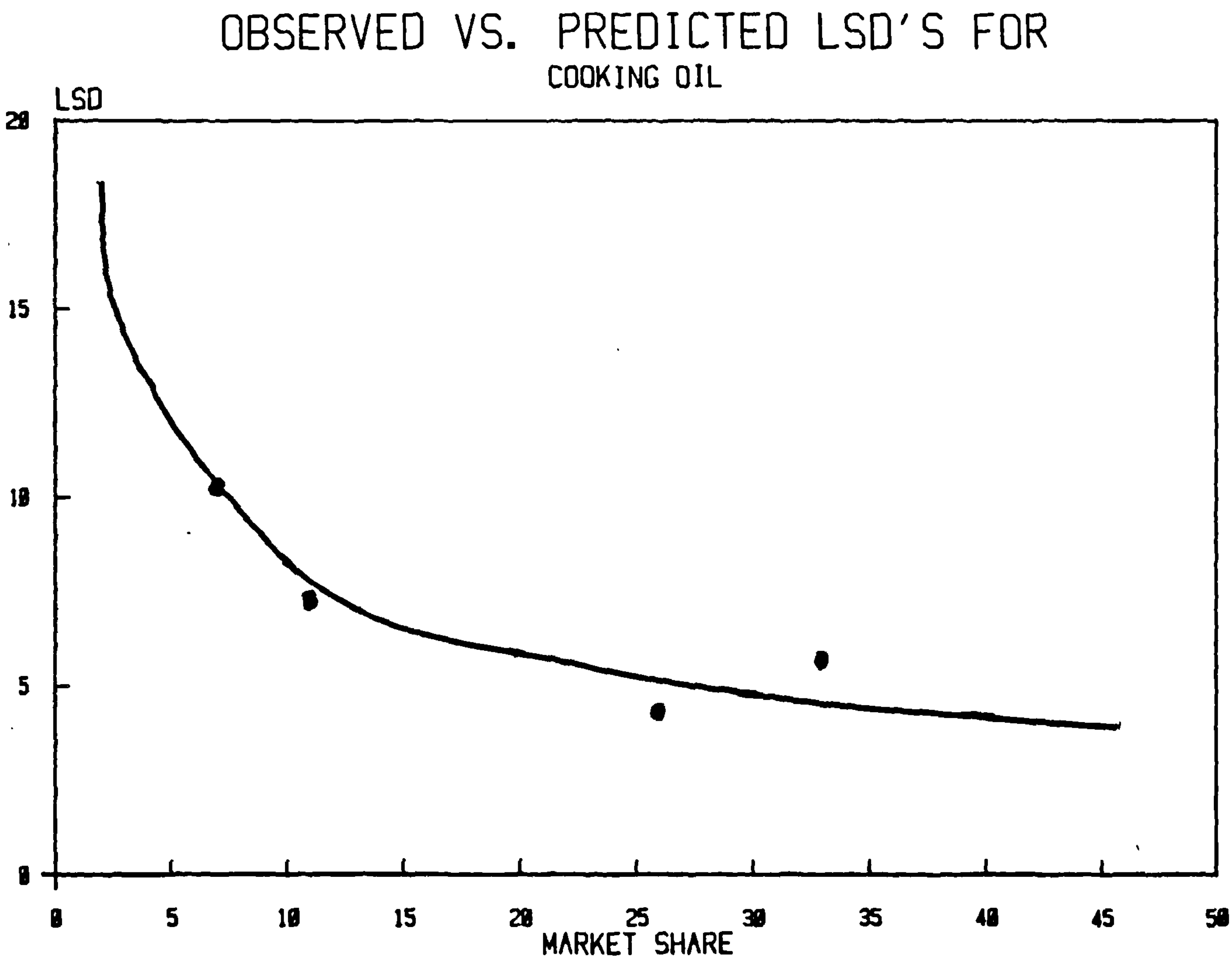

OBSERVED VS. PREDICTED LSD'S FOR
COOKING OIL
LSD
20
15
10
5
0
0
5
10
15
20
25
30
35
40
45
50
MARKET SHARE

figure 4.7.

$$SE_{(i)} = a + b\ 1/\sqrt{NT(i)} + E(i)$$

where,

$NT(i)$ = number of transactions for brand i.

This model was tested using the store level SE's from a second set of data composed of fifty-seven brands from a diverse set of product classes. The results are displayed in figure 4.8.

insert figure 4.8. here

As with the previous analysis, there is a strong relationship, this time the R^2 being .87. For brands for which there were more than two thousand transactions over a fifty-two week test period, the predicted SE was less than six percent.

4.4.3. Comparing the Sensitivity of Both Models.

A test of this model was repeated for household level SE's from a third set of data composed of twenty-six tests. The results are shown in figure 4.9.

insert figure 4.9. here

A similar relationship was obtained, with R^2 at .75.

figure 4.8.

STORE MODEL
% STANDARD ERROR
PREDICTED FROM BRAND TRANSACTIONS
N = 57
$R^2 = .87$

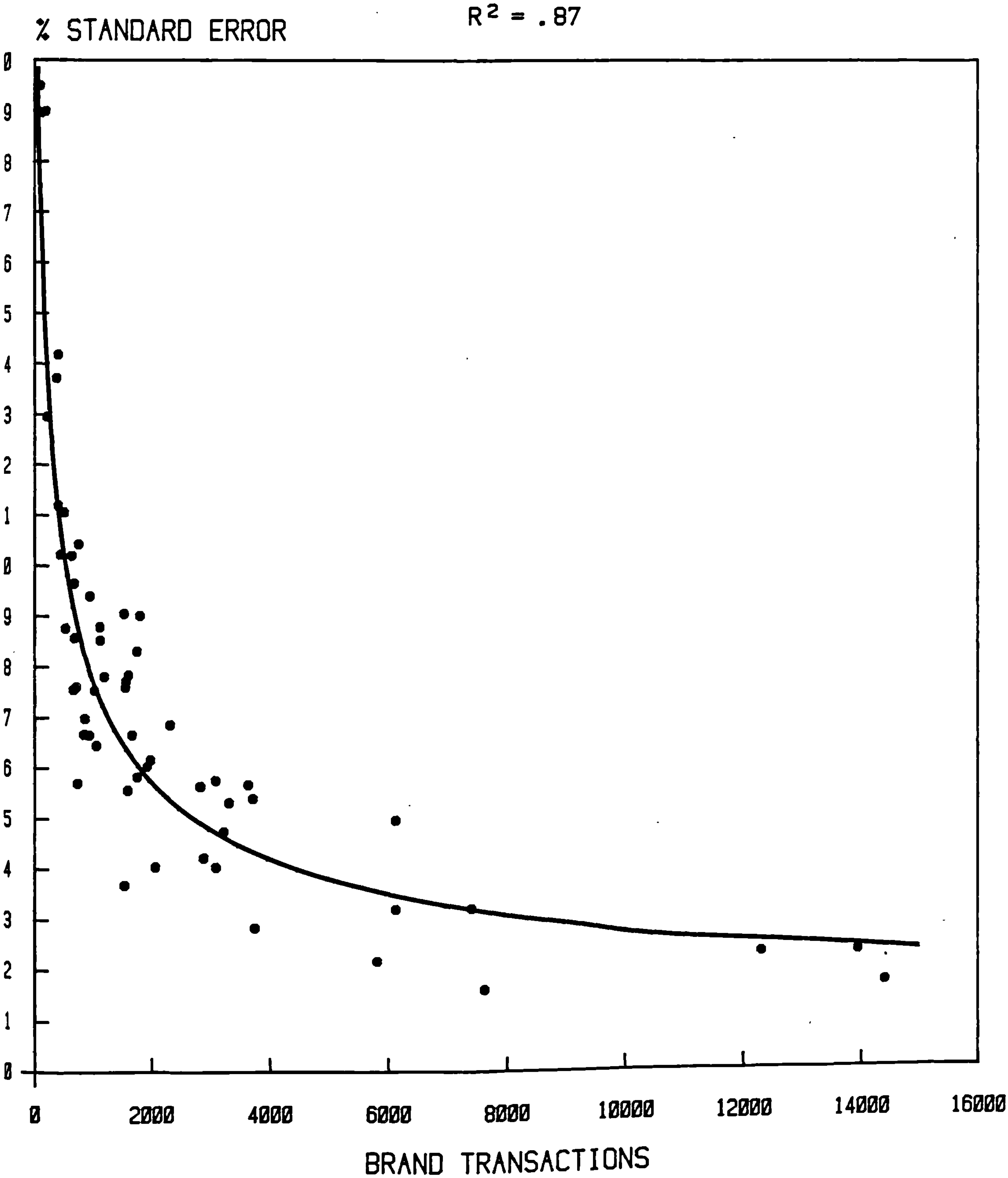
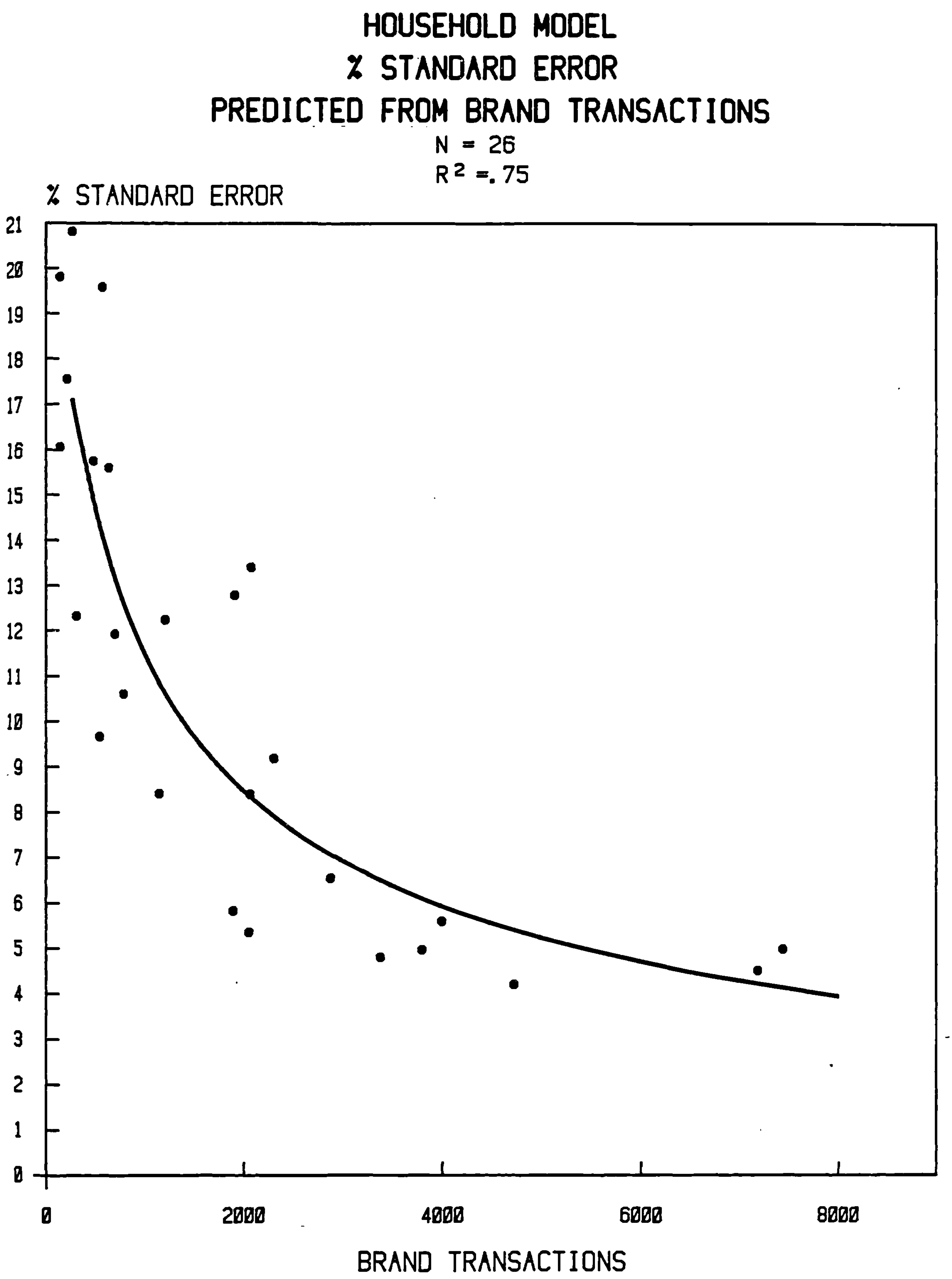


figure 4.9.


HOUSEHOLD MODEL
% STANDARD ERROR
PREDICTED FROM BRAND TRANSACTIONS
N = 26
R^2 =.75
% STANDARD ERROR
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
0
2000
4000
6000
8000
BRAND TRANSACTIONS

By superimposing the relationships, it became clear that the store level model had a higher level of sensitivity than the household level model (see figure 4.10.)

insert figure 4.10. here

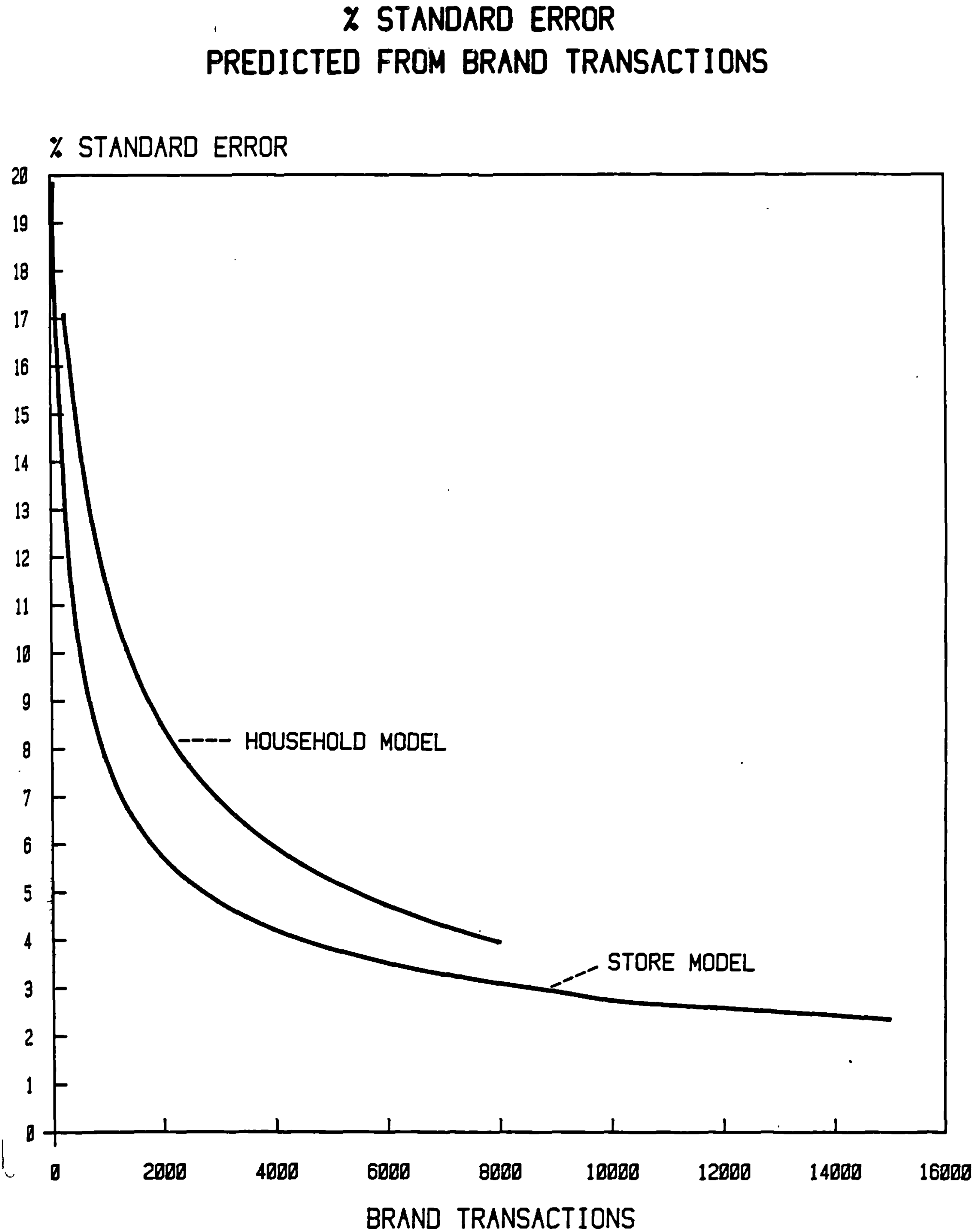
Tables 4.15. and 4.16. give the actual values.

insert tables 4.15. and 4.16. here

One reason for the improved sensitivity at the store level may lie in its more efficient analysis of variance model compared to the model used at the household level. In the household model, panels constitute separate subgroups of households (households are nested within panels). The store model compares subgroups of households in each panel within the same store (stores are crossed with panels). Since extraneous factors (price, promotion, chain) are introduced at the store level, comparison (blocking) of panels at this level is effective in removing variation.

The comparison of significance levels for F panels from a study of forty-nine brands to theoretical levels provides a check on the appropriateness of the store model (see table 4.17.):

figure 4.10.



% STANDARD ERROR
PREDICTED FROM BRAND TRANSACTIONS
% STANDARD ERROR
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
HOUSEHOLD MODEL
STORE MODEL
0
2000
4000
6000
8000
10000
12000
14000
16000
BRAND TRANSACTIONS

Household Model Sensitivity

Percent Standard Error Estimated from Brand Transactions

Brand Trans.	% SE	Brand Trans.	% SE	Brand Trans.	% SE	Brand Trans.	% SE
300	17.22	580	14.41	1150	11.11	2700	7.48
310	17.11	600	14.25	1200	10.91	2800	7.34
320	17.00	620	14.09	1250	10.72	2900	7.21
330	16.89	640	13.93	1300	10.54	3000	7.09
340	16.77	660	13.78	1350	10.37	3100	6.97
350	16.66	680	13.64	1400	10.20	3200	6.86
360	16.55	700	13.50	1450	10.04	3300	6.75
370	16.44	720	13.36	1500	9.89	3400	6.64
380	16.33	740	13.23	1550	9.75	3500	6.54
390	16.22	760	13.10	1600	9.61	3600	6.45
400	16.12	780	12.97	1650	9.47	3700	6.35
410	16.01	800	12.85	1700	9.35	3800	6.26
420	15.90	820	12.73	1750	9.22	3900	6.18
430	15.80	840	12.61	1800	9.10	4000	6.09
440	15.70	860	12.49	1850	8.99	4200	5.93
450	15.60	880	12.38	1900	8.87	4400	5.78
460	15.50	900	12.27	1950	8.76	4600	5.64
470	15.40	920	12.17	2000	8.66	4800	5.51
480	15.30	940	12.06	2100	8.46	5000	5.39
490	15.21	960	11.96	2200	8.27	5200	5.27
500	15.11	980	11.86	2300	8.10	5400	5.16
520	14.93	1000	11.77	2400	7.93	5600	5.05
540	14.75	1050	11.54	2500	7.77	5800	4.95
560	14.58	1100	11.32	2600	7.62	6000	4.86
						6500	4.63
						7000	4.44

table 4.15.

Store Model Sensitivity

Percent Standard Error Estimated from Brand Transactions

Brand Trans.	% SE	Brand Trans.	% SE	Brand Trans.	% SE	Brand Trans.	% SE
100	19.96	440	11.33	1150	7.51	3600	4.56
110	19.34	450	11.22	1200	7.37	3700	4.50
120	18.77	460	11.12	1250	7.24	3800	4.45
130	18.25	470	11.02	1300	7.12	3900	4.40
140	17.77	480	10.93	1350	7.00	4000	4.35
150	17.34	490	10.83	1400	6.89	4200	4.26
160	16.93	500	10.74	1450	6.78	4400	4.17
170	16.55	520	10.56	1500	6.68	4600	4.10
180	16.20	540	10.40	1550	6.59	4800	4.02
190	15.87	560	10.24	1600	6.50	5000	3.95
200	15.56	580	10.09	1650	6.41	5200	3.88
210	15.27	600	9.94	1700	6.33	5400	3.82
220	15.00	620	9.80	1750	6.25	5600	3.76
230	14.74	640	9.67	1800	6.17	5800	3.70
240	14.50	660	9.54	1850	6.10	6000	3.65
250	14.27	680	9.42	1900	6.03	6500	3.53
260	14.05	700	9.31	1950	5.96	7000	3.42
270	13.84	720	9.20	2000	5.89	7500	3.32
280	13.64	740	9.09	2100	5.77	8000	3.23
290	13.45	760	9.09	2200	5.65	8500	3.15
300	13.26	780	8.88	2300	5.54	9000	3.07
310	13.09	800	8.79	2400	5.44	9500	3.00
320	12.92	820	8.69	2500	5.34	10000	2.94
330	12.76	840	8.60	2600	5.25	11000	2.82
340	12.61	860	9.52	2700	5.17	12000	2.72
350	12.46	880	8.43	2800	5.08	13000	2.63
360	12.31	900	8.35	2900	5.01	14000	2.55
370	12.18	920	8.27	3000	4.93	15000	2.48
380	12.04	940	8.20	3100	4.86	16000	2.42
390	11.91	960	8.12	3200	4.80	17000	2.36
400	11.97	980	8.05	3300	4.73	18000	2.30
410	11.67	1000	7.98	3400	4.67	19000	2.26
420	11.55	1050	7.81	3500	4.61	20000	2.21
430	11.44	1100	7.65				

table 4.16.

Alpha Level of F Panels	**Proportion of Cases Showing Significant Panel Differences:**
.25	.245
.10	.102
.05	.041
.025	.020
.01	.020

table 4.17.

The results of this study do not indicate either positive or negative bias, although the sample size is lower than desirable.

4.5. Conclusions.

Table 4.18. summarizes the findings reported in this chapter. On the basis of these findings, the following conclusions can be drawn:

1.- Estimation of an advertising effect (copy or weight) by using a matched panel system is difficult. The methodology that has been used in the past (the panel level model) has a fundamental statistical problem: There is a higher probability of erroneously identifying the presence of an effect (type I error).

2.- The individual household model is less biased than the panel level model. (The degree of bias of the store level model has not been assessed.)

3.- The panel level model is most sensitive (but biased), followed by the store level model and the individual household model.

4.- Using the store level model, the median sensitivity within the TMG system was ±7.4%. There was no difference in sensitivity between scanner and diary markets.

5.- Sensitivity can be predicted with a great deal of accuracy from the number of transactions for a brand.

6.- Both the store level model and the individual level model allow the experimenter to include a number of covariates that improve the overall sensitivity. To date, no investigation has been made into the degree of bias of the store model. Hence, the household model, which has been shown to be less biased than the panel model, will be applied for test analyses (see chapters 5 and 6).

Summary of Results

Description	**Reject Hypothesis**
1.- TMG's system sensitivity can be estimated using either the individual household model or the store model.	H1.1.
2.- TMG's system sensitivity is different for each product/category.	H2.0.
3.- The probability of observing an effect is independent of the choice of either a scanner or diary city.	H3.1.

4.- TMG's system sensitivity can be predicted from the number of transactions during a given period of time. H4.1.

table 4.18.

In chapter 5, the individual household model will be used in the analysis of a number of advertising strategy tests at the aggregate panel level, and, in chapter 6, the same advertising strategy tests will be analyzed at the disaggregate level.

Chapter 5

Empirical Norms I: Analysis of Advertising Strategy Tests at the Aggregate Level.

In this chapter, the results of a number of TMG advertising strategy tests, both weight and copy, will be analyzed at the aggregate panel level by means of the individual household model developed in chapter 4. [This data set is distinct from the sixty-nine data sets used to develop the model (see chapter 4), which were derived from periods of no testing.] The analysis at the aggregate panel level investigates the possible effect a change in advertising stategy may have on the panel as a whole. The objective of this analysis is to evaluate the outcomes, that is the directional difference and significance, of a set of advertising strategy tests. It is argued that the findings of this analysis will lead to generalizations regarding the response to changes in advertising strategy for established brands. These generalizations will aid in the creation of more effective advertising management and more appropriate designs for future tests.

In chapter 6, the same advertising strategy tests will be analyzed at the disaggregate level to determine the effect on underlying dynamics such as the effect on triers, repeaters or the amount bought.

The hypotheses regarding advertising strategy that are tested in this chapter are:

H5.0. The probability of an advertising strategy change to cause a panel effect* is less than 50%.

H5.1. The probability of an advertising strategy change to cause a panel effect* is equal to or greater than 50%.

H7.0. The probability of an advertising strategy change to cause a panel effect* differs for tests conducted in diary cities vs. those conducted in scanner cities.

H7.1. The probability of an advertising strategy change to cause a panel effect* does not differ for tests conducted in diary cities vs. those conducted in scanner cities.

H8.0. The probability of an advertising strategy change to cause a panel effect* is a function of the share of the test brand.

H8.1. The probability of an advertising strategy change to cause a panel effect* is not a function of the share of the test brand.

H9.0. The probability of an advertising strategy change to cause a panel effect* is a function of the household sample size.

H9.1. The probability of an advertising strategy change to cause a panel effect* is not a function of the household sample size.

The hypotheses regarding changes in <u>weight</u> strategy that are tested in this chapter are:

H10.0. Advertising weight increases equal to or less than 100% have less than a 50% probability of causing a panel effect*.

H10.1. Advertising weight increases equal to or less than 100% have a 50% or higher probability of causing a panel effect*.

H11.0. The probability of an advertising weight test testing zero vs. any advertising to cause a panel effect* is greater than the probability for weight tests testing non-zero based advertising.

H11.1. The probability of an advertising weight test testing zero vs. any advertising to cause a panel effect* is equal to or smaller than the probability for weight tests testing non-zero based advertising.

H12.0. Changes in advertising weight cause equal or larger panel effects* than changes in copy strategy.

H12.1. Changes in advertising weight cause smaller panel effects* than changes in copy strategy.

The hypotheses regarding changes in <u>copy</u> strategy that are tested in this chapter are:

H14.0. Changes in advertising copy*** have less than a 50% probability of causing a panel effect*.

H14.1. Changes in advertising copy*** have a probability of causing a panel effect* equal to or greater than 50% .

H15.0. The probability of a change in copy strategy to cause a negative effect is equal to or greater than that for weight tests.

H15.1. The probability of a change in copy strategy to cause a negative effect is less than that for weight tests.

* Panel effect: effect on the test brand's volume identified at the aggregate panel level.

** An effect at a disaggregate level: effect on the test brand's volume identified at the disaggregate level such as effects on triers, repeaters, or amount bought.

*** Advertising copy tests: only those copy tests testing an "old" against a "new" copy strategy.

5.1. The Advertising Strategy Database.

In order to minimize cost to TMG, the execution and analysis of the advertising strategy tests that were chosen had to be completed by the end of 1983. For reasons given in chapter 4, all tests were analyzed in a uniform way by using the individual household model. This data set is representative of TMG's established brand testing business since no effort was made to select any particular tests. All the tests in this database were analyzed between January 1982 and January 1984. They include all weight and copy tests on established national brands conducted and analyzed by TMG during that period. Tests analyzed prior to January 1982 are not included since they were not analyzed using the individual household methodology. For reasons stated in chapter 2, a comparison of test results based on different methodologies was believed to be inappropriate.

For each test, a static sample of households was drawn over the pretest and test periods to exclude inconsistent reporters. For panelists in diary markets this meant that they needed to have returned 80% of their diaries, whilst scanner panelists had to have used their card once every four weeks.

Certain data were unavailable for some of these tests. For instance, at the request of a client, an analysis might be performed only to identify and estimate an advertising effect and not to analyze category or brand trends. Thus, in some analyses market shares for the test brand were not calculated whilst in other tests category penetration data were not reported. The data for this research are drawn from the hard copy reports used for presentation to clients. The raw data for these tests are not readily available and it was, therefore, impossible to obtain complete datasets by going back to the raw data. Therefore, if a measure for a certain test was not available, the test was excluded from the calculations. If the specific measure was available the test was included.

In estimating an advertising effect, that is, the standardized, non-zero covariate volume change, an 80% confidence limit was used consistently across all studies in order to be able to compare the test results. In addition, in some cases a 1-tail criterion was used whilst in other cases test results were reported using a 2-tail criterion. Whereas, in general, weight tests aim to generate a positive response in sales, copy tests can be "successful" if no response is identified. For instance, as was discussed in chapter 2, a client may only be interested in the "downside" risk of the creative strategy, in which case a 1-tail criterion was applied. These risk management issues are determined by the individual client and can be different for each test. This database contains estimates of advertising effects for nineteen weight tests that use a 1-tail criterion; a 2-tail criterion was used for all copy tests and six more weight tests.

Appendix IV shows the data contained in the database. In Appendix V the various measures are defined. These measures, which are discussed below, are typically reported to clients and used as the basis for analysis.

5.1.1. Numerical Description of Variables.

A total of thirty-five studies are included in this database: twenty-five weight tests and ten copy tests. Five of the copy tests and sixteen of the weight tests were conducted in diary markets and five copy tests and nine weight tests in scanner markets. The concentration of weight tests in diary cities was due to the availability of these categories for testing purposes; they were not available in scanner cities where new products were being tested. A breakout by city is given in table 5.1. Although the number of copy tests is less than desirable, it is believed that a comparison with weight studies can be made.

Number of Tests by City and Type of Test

City	Copy	Weight
Bakersfield	2.	6.
Charleston	1.	4.
Quad Cities	2.	6.
Total diary	5.	16.
Evansville	2.	4.
Orlando	2.	3.
Portland	1.	2.
Total scanner	5.	9.
Total	**10.**	**25.**

table 5.1.

Sixty percent of the tests included in the database were conducted for Food Products. Tests conducted for Household Products represent 28% of the studies. Health and Beauty Aids and

"Miscellaneous" studies represent the remaining 12%. A breakout of the tests conducted in different categories is given in table 5.2.

Number of Tests by Category and Type of Test

Category Description	# of Tests	Copy/Weight	
Household Products			
household cleaning compounds	1.		1
household supplies	3.	1	2
paper products	3.		3
soaps and detergents	3.		3
total Household Products	10.	1	9
Health and Beauty Aids			
oral hygiene	1.	1	
total Health and Beauty Aids	1.	1	
Miscellaneous			
greeting cards	3.		3
total Miscellaneous	3.		3
Food			
cereal	2.	1	1
cocoa	1.		1
coffee	1.	1	
sauces	3.	1	2
pet foods	2.		2
soft drinks	8.	5	3
tea	2.		2
refrigerated and frozen desserts	2.		2
total Food	21.	8	13
Total	**35.**	**10**	**25**

table 5.2.

5.1.2. Category and Brand Purchase Cycle.

The interval between consecutive brand or category purchases by panelists can be an important determinant of the ability to measure an advertising effect. For instance, for brands with long purchase cycles, a test may have to run longer in order to show an advertising effect. These purchase cycles differ for each brand and each category; for instance, Household Products had approximately a 50% longer purchase cycle than did Food Products. Purchase cycle data for the Health and Beauty Aids and Miscellaneous categories were unavailable.

The average category purchase cycle across all studies is 40.7 days. The average brand purchase cycle across all studies is 50.1 days. Brands for which weight tests were conducted had significantly longer average purchase cycles (53%) than brands for which copy tests were conducted. As was stated before, copy tests had been conducted primarily for Food Products whilst more weight studies were conducted for Household Products. Table 5.3. breaks out the category and brand purchase cycles for the Food and Household categories and for weight and copy tests.

Category and Brand Purchase Cycles

Category	**Brand Purch. Cycle (days)**	**Category Purch. Cycle (days)**
Food	42.2	35.1
Household Products	64.2	50.0
Average	50.1	40.7
copy	37.2	26.4
weight	57.2	47.2

table 5.3.

5.1.3. Static Sample Size.

In chapter 4 it was shown that the number of transactions in any given test is important with regard to the ability to measure an advertising effect, and is a function of the purchase cycle, the number of households included in the test, the length of the test and the share of the brand.

As far as the number of households is concerned, the static sample size shows significant differences between cities (see table 5.4.). Overall, scanner cities have a 10% higher static sample size than do diary cities, which is significant at an 89% confidence level. Bakersfield has the lowest average static sample size and Orlando has the highest. Since the average panel in a city has approximately 2,000 non-static households, the relatively low static sizes suggest either a high turnover and/or inconsistent reporting of panelists in these cities.

Average Static Size for All Tests by City

City	**Average Static Size for All Tests**
Bakersfield	1456
Charleston	1651
Quad Cities	1729
Total diary	1607
Evansville	1685
Orlando	1861
Portland	1794
Total scanner	1771
All cities	1673

table 5.4.

5.1.4. Market Share.

Across all studies, average market shares during the pretest and test periods were calculated to assess, a priori, the degree to which the test and control panels were balanced. The objective was to determine the overall need to correct test data for differences in pretest data. Market share for a brand is the ratio of the brand volume to the category volume. Table 5.5. shows that there was a non-significant difference during the pretest period and almost no difference during the test period. Interestingly, this may suggest that across all tests included in this database, no need exists to correct for pretest differences and that the absence of an overall difference between test and control panels during the test period may indicate that the individual advertising effects did not cause a difference significant enough to observe across all studies. Shares for brands for which weight tests were conducted were higher, significant at an 82% confidence level, than for those for which copy tests were conducted, possibly indicating that clients tend to test changes in copy strategy for relatively smaller brands. Again, little difference existed between test and control panels.

However, estimating an advertising effect by comparing shares between the control and test panels may not be appropriate since an overall category effect may have taken place. In that case the volume for all brands could have changed but the shares could have remained stable. Also, the degree of match between test and control may differ significantly for individual studies. So, as was argued in chapter 4, the degree of match needs to be determined for each study.

Therefore, an attempt was made to correct the test share data for pretest share data for each individual study and then evaluate the overall difference by calculating a "second difference" of share. This is defined as the difference between $(S_{2t} - S_{2c}) - (S_{1t} - S_{1c})$ where S is share for the brand, t and c are the test and control panels, respectively, and 1 and 2 are pretest and test periods.

It was found that the average second difference across all studies was .51%. Although these second difference share numbers are not the same as covariate adjusted volume estimates, they are close approximations. In any case, they suggest extremely well matched panels and may again indicate overall small effects. Brands tested in Evansville and, in particular, in Portland had significantly lower shares than in the other cities. Overall, shares of brands tested in diary cities are significantly higher than those of brands tested in scanner cities. As can be recalled, shares for brands for which weight tests were conducted were higher than for those for which copy tests were conducted. Brands tested in Bakersfield had the highest share and the highest number of weight tests. The possible implications of these significant differences in shares will be further examined in section 5.2.

Average Brand Share by City, Type of Test, and Panel

	Average Brand Share in Test Panel	**Average Brand Share in Control Panel**
Pretest period	32.1	33.9
test period	33.0	33.4
copy	24.1	24.8
weight	38.9	38.9

	Average Brand Share
Bakersfield	46.6
Charleston	34.9
Quad Cities	37.4
Total diary	36.9
Evansville	16.1
Orlando	30.9
Portland	1.8
Total scanner	27.1

table 5.5.

5.1.5. Length of Pretest and Test Periods.

Across all tests, the average length of the pretest period is 39 weeks and the average length of the test period is 38.4 weeks (see table 5.6.). Therefore, the average test lasts less than one year. The length of the pretest period in scanner cities is approximately equal to that in diary cities (37.8 vs. 39.6 weeks). The length of the test period, however, is significantly shorter for tests conducted in scanner cities than for tests conducted in diary cities (32.6 vs. 42.3 weeks), possibly because of tests for seasonal products. For copy tests significantly (at a 97% confidence level) longer pretest periods were used while weight tests had longer test periods. This may explain the longer test length in diary cities, since more weight tests were executed there. Tests in Orlando had both the shortest pretest as well as test length.

It follows that, on the average, test brands are monitored approximately 5.4 times during a test (38.4 weeks, the average test period length, divided by 50.1 days, the average brand purchase cycle). Clearly, this differs for each category, but suggests a sufficient number of repeat buying occasions to measure an advertising effect. There is a significant difference in the number of repeat occasions for brands in weight tests (4.8 times) and copy tests (6.8 times), which may influence the ability to observe an advertising effect. Particularly in Orlando, with an average test length of 24 weeks, test brands in weight studies may not have sufficient potential repeat buying occasions (2.9 times) to be able to observe an advertising effect. Again, tests for Household Products, with an average brand purchase cycle of 64.2 days, may offer insufficient buying occasions.

Length of Pretest and Test Periods by City and Type of Test

City	Pretest Length (weeks)	Test Length (weeks)
Bakersfield	40.0	41.5
Charleston	38.4	41.6
Quad Cities	40.0	43.5
Total diary	39.6	42.3
Evansville	43.2	38.7
Orlando	29.2	24.0
Portland	40.3	34.7
Total scanner	37.8	32.6
All cities	39.0	38.4
copy	47.5	36.0
weight	36.2	39.4

table 5.6.

5.1.6. Advertising Effect.

The thirty-five copy and weight tests were analyzed for an advertising effect using the individual household model. It was found that 37.1% of all tests showed either a positive or negative effect. Forty percent of the weight tests showed an effect, whereas 30% of the copy tests showed an effect (see table 5.7.). This difference is particularly significant since brands in copy tests had, on the average, almost fifty percent more potential repeat buying occasions. Given this difference in, and the significance of, the number of observations, one could have expected to observe more advertising effects for copy tests. On the other hand, copy tests have been done primarily for smaller brands, which may have reduced the number of observations. Of the ten weight tests, four tested advertising spending against no spending (see table 5.8.). Three of those showed a significant effect, which is a significantly higher percentage than for those studies testing an increase against a base level spending.

Probability of Advertising Effect by Type of Test

	# of Tests	**# with Adv. Effect**	**Prob. of Adv. Effect**
copy	10.	3.	30.0
weight	25.	10.	40.0
Copy and Weight	35.	13.	37.1

table 5.7.

Breaking out the weight tests by the differences in media weight between test and control panels (see table 5.8) shows that the average difference in Gross Ratings Points (GRP), a measure of both the Reach and Frequency of the advertising plan, was 66.9%, a difference of 71.7% in tv dollars. The greatest number of tests showing an advertising effect occurs when the difference in GRP level is between 51% and 75%. Although the sample sizes are small, these data may suggest that differences of 75% and higher have a lower probability of causing an advertising effect. There were no tests with less than 25% weight increases. Slightly over half (53.8%) of the tests included in this database, and for which GRP data are available, have shown an advertising effect. For those tests for which dollar data were available, excluding the tests with zero advertising in the control panel, this percentage was 25.0%. Including zero-based tests, this percentage is 37.5% (6 out of 16).

Probability of Advertising Effect at Different Levels of Advertising

GRP % Diff.	# of Tests	# of Tests with Adv. Effect	Prob. of Effect
0 - 25	-	-	-
26 - 50	6.	3.	50.0
51 - 75	4.	3.	75.0\57.1
gt 75	3.	1.	33.3/
Total	13.*	7.	53.8

$ % Diff.	# of Tests	# of Tests with Adv. Effect	Prob. of Effect
0 - 25	-	-	-
26 - 50	5.	3.	60.0
51 - 75	-	-	-
gt 75	7.	0.	0.0
Total	12.*	3.	25.0

# of Tests	Control Panel ($mm)	Test Panel ($mm)	Adv. Effect
1	0.	4.	y
1	0.	4.	n
1	0.	4.3	y
1	0.	6.7	y
4			3

Average GRP difference: 66.9%
Average TV dollar difference: 71.7%

* Data unavailable for all 25 weight tests.

table 5.8.

Table 5.9. shows that a greater proportion of copy tests (40%) showed an effect in scanner cities than in diary cities (20%); however, a significantly higher proportion of weight tests in diary cities (43.8%) than in scanner cities (33.3%) showed an effect. Orlando and Charleston had the largest proportion of significant

advertising effects, whereas Evansville and Portland had the lowest.

Probability of Advertising Effect by City and Type of Test

City	Type	# Tests Analyzed	# Tests with Adv. Effect	Prob. of Effect
Bakersfield	copy	2.	0.	0.0
	weight	6.	3.	50.0
		8.	3.	37.5
Charleston	copy	1.	0.	0.
	weight	4.	2.	50.0
		5.	2.	40.0
Quad Cities	copy	2.	1.	50.0
	weight	6.	2.	33.3
		8.	3.	37.5
Total diary	copy	5.	1.	20.0
	weight	16.	7.	43.8
		21.	8.	38.1
Evansville	copy	2.	1.	50.0
	weight	4.	1.	25.0
		6.	2.	33.3
Orlando	copy	2.	1.	50.0
	weight	3.	1.	33.3
		5.	2.	40.0
Portland	copy	1.	0.	0.0
	weight	2.	1.	50.0
		3.	1.	33.3
Total scanner	copy	5.	2.	40.0
	weight	9.	3.	33.3
		14.	5.	35.7
Total	**copy**	10.	3.	30.0
	weight	25.	10.	40.0
		35.	13.	37.1

table 5.9.

Table 5.10. shows that the mean absolute volume change for copy tests that showed a significant effect is 7.57%. For weight tests this is 14.99%. Interestingly, all significant copy effects were negative whereas all significant weight effects were positive. Effects shown in copy tests ranged from -.41% to -15.0% and effects shown in weight tests ranged from +5.6% to +45.0%.

Copy tests, however, can test either the difference between two new copies or between an old and a new copy strategy. For the former, the notion of an "advertising effect" may not be appropriate since, basically, no "norm" exists. For the latter, a "norm" may exist in the form of the old copy's performance.

In this database only two studies tested the difference between two new copies for which no "advertising effect" was reported. Of the eight tests that compared a new copy strategy to an old one, three, or 37.5%, showed a significant effect. This is approximately equal to the proportion of all weight tests (40%) showing an effect. The proportion of copy tests showing an effect is even higher if one considers only the weight tests testing nonzero-based advertising plans; in that case seven out of twenty-one tests, or 33.3%, showed an effect.

Although the sample sizes are small, the data suggest that a change in copy strategy for an established brand does not have a positive effect. Increasing advertising weight for an established brand, though, does seem to be an effective strategy. Moreover, the probability of causing a negative effect on an established brand's volume by changing its copy strategy is about equal to the probability of causing a positive change on an established brand's volume by increasing its advertising weight.

Mean Absolute and Estimated % Volume Change
Due to a Change in Advertising Strategy

Type of Test	**# of Tests**	**Mean Absolute Vol. Change**
copy	3.	7.57
weight	10.	14.99
	# of Tests	**Estimated % Vol. Change**
copy	1.	-0.4
	1.	-7.3
	1.	-15.0
Mean volume change for copy tests		**-7.57**
weight	3.	+ 5.6
	3.	+11.0
	1.	+13.5
	2.	+20.8
	1.	+45.0
Mean volume change for weight tests		**+14.99**

	# of Tests with Effect	**# of Tests without Effect**	**Total**
2 new copies	0.	2.	2.
old vs. new	3.	5.	8.
Total	3.	7.	10.

table 5.10.

5.1.7. Penetration and Repeat.

Changes in a brand's sales can be caused by changes in the penetration, the repeat or the amount bought of the brand. The initial level of these measures may well influence the probability of increasing a brand's sales. For instance, a relatively large share brand in a highly penetrated category may not respond to an increase in advertising weight, whereas a small brand may experience an increase in share due to consumers switching away from the category leader.

Cumulative penetration and cumulative repeat profiles for each of the product categories were calculated by aggregating the studies in the database into their respective overall categories. For each 4-week period during the test period, the cumulative penetration and cumulative repeat figures for each study were summed and averaged to arrive at a cumulative penetration and cumulative repeat figure for a particular period across all studies. Moreover, it is possible for these cumulative measures to decrease over time since later periods had fewer studies for which these data were available. Data for the first ten 4-week periods are available for all copy and weight studies. When broken out into studies with and without advertising effects or for different categories, data for the first six 4-week periods are commonly available.

Table 5.11. shows that the average starting period cumulative penetration and cumulative repeat rates for all brands were 3.2% and 8.4%, respectively. At the end of ten 4-week periods, the average cumulative penetration and repeat rates are 15.7% and 45.7%. Studies done for Household Products had approximately 20% higher cumulative penetration and cumulative repeat rates than studies done for Food Products. Brands in studies showing an advertising effect had lower

cumulative penetration rates than those that did not show an effect; however, their cumulative repeat rates were higher. Overall, copy tests had lower cumulative penetration and repeat rates than weight studies. Copy tests with and without advertising effects did not exhibit different cumulative repeat rates. Since the cumulative penetration and repeat rates for the copy and weight tests that did or did not exhibit an advertising effect were different in the starting period, no conclusions can be drawn yet regarding the effect on penetration or repeat. However, there may be directional evidence that a change in advertising strategy caused an effect on penetration, since the overall increase in penetration between period one and period six for all tests with an effect was 265% (from 2.6% to 9.5%). Cumulative repeat rates for the same tests increased only 146% (from 13.6% to 33.5%). The effect on cumulative penetration and cumulative repeat will be further examined in chapter 6, section 6.2.3.

Cumulative Penetration and Cumulative Repeat Profiles

Period

	1	2	3	4	5	6	10
Penetration							
all studies	3.2	5.4	7.5	8.8	10.0	11.3	15.7
all food	2.7	4.5	6.2	7.5	8.6	10.6	
all household	3.8	6.3	8.9	10.3	11.6	12.6	
all w/ effect	2.6	4.6	6.3	7.6	8.6	9.5	
all w/o effect	3.6	5.9	8.3	9.6	10.9	12.5	
all copy	2.2	4.5	6.2	7.6	8.4	9.5	
copy w/ effect	3.5	6.7	9.2	10.9	12.0	13.4	
copy w/o effect	0.9	2.4	3.3	4.2	4.8	5.6	
all weight	3.5	5.6	7.8	9.2	10.4	11.8	
w. w/ effect	2.3	3.9	5.4	6.5	7.4	8.2	
w. w/o effect	4.2	6.6	9.3	10.7	12.2	13.9	
Repeat							
all studies	8.4	16.6	22.1	26.0	28.8	29.9	45.7
all food	5.9	9.1	20.1	25.4	27.2	28.2	
all household	12.4	22.2	25.3	27.6	30.6	32.4	
all w/ effect	13.6	21.6	27.9	30.9	33.5	33.5	
all w/o effect	3.2	11.6	16.3	21.1	24.2	26.5	
all copy	4.0	14.6	15.2	19.6	25.2	25.1	
copy w/ effect	8.1	12.5	15.3	17.9	23.4	25.2	
copy w/o effect	0.0	16.7	15.1	21.4	24.0	25.0	
all weight	9.8	17.3	24.4	28.2	30.0	31.5	
w. w/ effect	15.4	24.6	32.1	35.3	36.8	36.8	
w. w/o effect	4.3	10.0	16.7	21.0	23.3	27.0	

table 5.11.

5.1.8. Source of Volume Analysis.

Typically, in TMG tests, an analysis is performed to identify the sources of any observed changes in brand purchasing behavior. This "Source of Volume" analysis traces changes in buying behavior for each household between the pretest and test periods, and then aggregates the findings to the test and control panels. For instance, if a household has purchased two brands, A and B, in a given category during the pretest period, and in the test period it repeats one of these brands, A, buys another brand, C, and also buys the test brand, X, the analysis assumes that the household switched from brand B to C or X and increased its category consumption by 50%. Clearly, this assumption makes this analysis inferential in nature since, depending upon the time frame or the definition of the category, "switching" or "category consumption" estimates may change. Also, this analysis does not adjust for pretest differences between panels. This issue will be further examined in chapter 6.

Whenever a change in advertising strategy causes a change in volume for the test brand, that change can be due to either or all of three reasons: switching to or from another brand, new lost buyers or an increase/decrease in category consumption. Averaged across all households and advertising strategy tests, the results detailed in table 5.12., show that changes in volume for the test brand are largely caused by switching behavior (42.1%) and increased category purchasing (32.7%). Thus, changes in advertising strategy for established brands seem to cause changes in loyalty and also in category purchasing. The remainder of the test brand's increase, 25.2%, came from new brand buyers. Sample sizes did not permit a breakout by copy and weight studies.

Source of Volume

switching	42.1%
new/lost buyers	25.2%
increase/decrease category	32.7%
	100.0%

table 5.12.

5.2. Results.

The purpose of this section is to examine the data through statistical tests on the differences in means of two subgroups on the variables discussed in section 5.1. This may lead to identifying those variables that may be significantly different across studies with and without an advertising effect and, in turn, may suggest ways by which one can predict test outcomes.

First, tests of significance will be performed to identify significant differences between those studies that showed an advertising effect and those that did not. Second, a correlation analysis of all variables in the database will be performed to identify variables that are highly correlated, in magnitude and significance, with the dependent variable (advertising effect). Finally, a discriminant analysis will be conducted.

5.2.1. Tests of Significance.

T-tests were run on all the variables in the database for those studies with and without an advertising effect. The observations were assumed to be independent of each other since they were across studies and not across time. A 90% confidence level was used to determine significance and, unless otherwise stated, all results are reported at that level of confidence.

A t-test was performed with static size as the independent variable and advertising effect (0,1) as the nominally scaled, dependent variable. The objective of this test was to see if there was a significant difference between the static size of studies with and without an advertising effect.

Table 5.13. shows that a significant difference exists in static size between those tests that showed an advertising effect and those that did not. Sample size, as was noted in chapter 4, significantly influences the ability to identify an advertising effect.

Significance Test:
Static Size and Advertising Effect

Adv. Effect	# of Tests	Mean Static Size	S.D.	Prob.
no	22.	1576.	175.	.0396
yes	13.	1835.	390.	

table 5.13.

An analysis of the raw data in table 5.14. confirms this: All tests with a static size of approximately 2,000 households or more showed an advertising effect.

Distribution of Static Size by Test Result

Static Size	Adv. Effect	Frequency	Cumulative Frequency
1028	y	1	1
1311	n	1	2
1339	n	1	3
1369	n	1	4
1370	y	1	5
1376	y	1	6
1381	n	1	7
1417	n	2	9
1426	y	1	10
1429	n	1	11
1459	n	1	12
1535	n	1	13
1536	n	1	14
1549	n	1	15
1586	n	1	16
1604	n	1	17
1664	n	1	18
1675	n	1	19
1685	n	1	20
1693	n	1	21
1710	n	1	22
1733	n	1	23
1788	n	1	24
1843	y	1	25
1886	n	1	26
1920	n	1	27
**			
2047	y	1	28
2058	y	1	29
2083	y	1	30
2103	y	3	33
2114	y	1	34
2200	y	1	35

table 5.14.

The studies with a static size over 2,000 households were further analyzed to identify any other common trends. The only other common factor that emerged was that all these studies had a lower penetration rate for the test panel during the test period, as was already shown in table 5.11.

A t-test was also performed with advertising effect as the dependent variable and share for the brand in the pretest period as the independent variable. As has been defined in section 5.1.1., share for a brand is the ratio of the brand volume to the category volume in the last pretest period. The objective of this test was to see if there was any significant difference in brand shares for those studies that showed an advertising effect and those that did not.

The results of the t-test detailed in table 5.15. suggest that there is a significant difference in the brand share for studies with and without an advertising effect. In fact, brands that did show an advertising effect were almost half the size in share of those that did not.

Significance Test:
Brand Share and Advertising Effect

Adv. Effect	# of Tests	Mean Share Size	S.D.	Prob.
no	13.	40.7	25.5	.058
yes	8.	22.9	14.9	

table 5.15.

A visual inspection of the raw data in table 5.16. further suggests that brands with shares of approximately 50% and higher consistently did not show an advertising effect. This may suggest that the probability of affecting a large share brand by changing its advertising strategy is significantly less than for small share brands.

Distribution of Brand Shares by Test Result

Share	Adv. Effect	Frequency	Cumulative Frequency
1.83	n	1	1
2.52	n	1	2
7.66	y	1	3
7.73	y	1	4
11.52	y	1	5
13.94	y	1	6
15.54	n	1	7
19.94	n	1	8
22.91	y	1	9
27.23	n	1	10
36.82	n	1	11
36.94	y	1	12
38.00	n	1	13
41.25	y	1	14
41.46	y	1	15
************			
55.28	n	1	16
58.32	n	1	17
66.67	n	1	18
68.37	n	1	19
68.61	n	1	20
69.48	n	1	21

table 5.16.

A t-test was also run on the significant volume changes between copy and weight studies. As could have been expected, table 5.17. suggests the results were highly significant, indicating that brands for which the advertising weight was increased showed significantly different results than for those studies for which the copy strategy was changed.

Significance Test:
Volume Change and Type of Test

Test	# of Tests	Mean Volume Change	S.D.	Prob.
copy	3.	-7.57	7.3	.0111
weight	10.	+14.99	11.93	

table 5.17.

A t-test was run on the difference in static size between diary and scan. However, as table 5.18. shows, the results were marginally significant at an 89% confidence level.

Significance Test:
Static Size and Type of Testing System

Test	# of Tests	Mean Static Size	S.D.	Prob.
diary	21.	1606.9	306.	.1119
scanner	14.	1771.	265.5	

table 5.18.

Another marginally significant result was observed by comparing studies testing low and high GRP or dollar weight differences and static size. As table 5.19. shows, studies with greater than 51% difference in weight between the test and control panels had lower static sizes. Given that most advertising effects were for "high" weight differences, small static sizes did not seem to have influenced this, in spite of the possible lack of observations.

Significance Test:

Static Size and Low/High Advertising Weight Difference

	N	Mean static size	S.D.	Prob.
low GRP weight (0-50%)	6.	1742.	397.	.1236
high GRP weight (51%+)	7.	1446.	236.	
low dollar weight (0-50%)	5.	1878.	331.	.1009
high dollar weight (51%+)	7.	1562.	136.	

table 5.19.

Given the significance, albeit marginal, of static size differences between diary and scanner, a Chi-square analysis was performed to evaluate the difference between significant effects in scanner markets and diary markets. With eight out of twenty-one studies in diary markets showing an effect and five out of fourteen studies in scanner markets, the Chi-square value is .020, which is significant at an 11% confidence level. Hence, there is no difference in observing advertising effects between diary and scanner markets.

The other variables discussed in section 5.1. were also analyzed, but no other significant differences were found. To demonstrate this, the results of t-tests on brand and category purchase cycles are shown in tables 5.20. and 5.21. Neither one was significant, although there may be some marginally significant evidence that brands with shorter purchase cycles were more likely to show an advertising effect. This could be expected since shorter purchase cycles could potentially increase the number of test brand purchases and, hence, the number of observations.

Significance Test:
Brand Purchase Cycle and Advertising Effect

Adv. Effect	# of Tests	Mean Br. P.c.	S.D.	Prob.
no	13.	53.4	20.3	.2284
yes	4.	39.5	14.6	

table 5.20.

Significance Test:
Category Purchase Cycle and Advertising Effect

Adv. Effect	# of Tests	Mean Cat. P.c.	S.D.	Prob.
no	12.	42.5	20.5	.52
yes	4.	35.2	12.6	

table 5.21.

5.2.2. Correlation Analysis.

A Pearson's correlation analysis was performed on all the variables in the database to identify those variables that are correlated with each other and, in particular, with the occurence of an advertising effect. Sample sizes permitting, the results of this analysis together with the significant results described in section 5.2.1. could then be confirmed by a discriminant analysis.

Table 5.22. lists the variables used in the correlation analysis and table 5.23. shows all significant correlations. All correlations with at least ten observations and a significance level of .10 are listed here. In each group of three numbers, the first number gives the magnitude and direction of the correlation between the two variables. The second number shows the 2-tail probability

value of the hypothesis that there is no correlation between the two variables, and the third number identifies the number of studies used to calculate that particular correlation.

Correlation Analysis Variables

TEF	adv. effect, 1 = adv. effect; 0 = no adv. effect
CUMTRY1	cumulative trial, test period, test panel
CUMTRY2	cumulative trial, test period, control panel
CUMRPT1	cumulative repeat, test period, test panel
CUMRPT2	cumulative repeat, test period, control panel
SHARE1	share in test period, test panel
SHARE2	share in test period, control panel
SHARE3	share in pretest period, test panel
SHARE4	share in pretest period, control panel
SHARE	(SHARE1 - SHARE2) - (SHARE3 - SHARE4)
STAT1	number of static households in the study
PREINT	length of pretest period
TESTINT	length of test period
WEIGHT	dummy variable, 1 = weight test; 0 = copy test
VOLCH1	absolute change in volume due to effect
WDIFF1	percentage GRP difference
TVDOLL	percentage dollar difference

table 5.22.

insert table 5.23. here

As can be observed from table 5.23.:

1.- Advertising effect is positively correlated to static size. This supports the finding reported in section 5.2.1. Advertising effect is negatively correlated with share, suggesting that higher share brands are less likely to show an advertising effect. The length of the pretest period affects the number of observations and, hence, is also negatively correlated with advertising effect. The positive correlation with volume change suggests that higher volume changes occur as the probability of an advertising effect goes up. The negative correlation between advertising effect and the

Significant Correlations

	TEF	STAT1	PREINT	TESTINT	CUMTRY1	CUMRPT1	CUMTRY2	CUMRPT2	SHARE1	SHARE2	SHARE3	SHARE4	WEIGHT	VOLCH1	WDIFF1	TVDOLL
TEF		0.425 0.011 35	-0.314 0.075 33									-0.378 0.091 21		0.325 0.057 35		-0.731 0.007 12
STAT1										-0.380 0.074 23	-0.475 0.030 21	-0.482 0.027 21				-0.653 0.021 12
PREINT >															-0.561 0.046 13	-0.664 0.019 12
TESTINT						0.858 0.001 11		0.851 0.001 11								0.617 0.033 12
CUMTRY1							0.991 0.001 13		0.904 0.001 11	0.882 0.001 11	0.832 0.002 11	0.789 0.004 11				
CUMRPT1								0.964 0.001 11								
CUMTRY2									0.905 0.001 11	0.899 0.001 11	0.848 0.001 11	0.809 0.003 11		-0.482 0.095 13		
CUMRPT2																
SHARE1										0.953 0.001 23	0.942 0.001 21	0.885 0.001 21		-0.414 0.050 23		
SHARE2											0.953 0.001 21	0.927 0.001 21		-0.403 0.056 23		
SHARE3												0.973 0.001 21	0.432 0.051 21	-0.515 0.017 21		
SHARE4														-0.501 0.021 21		
WEIGHT																
VOLCH1																
WDIFF1																
TVDOLL																

CORRELATION COEFFICIENTS / PROB > | R | UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

table 5.23.

weight difference in tv dollars between the test and control panels suggests that the larger this difference, the less likely it is to observe an advertising effect (see also table 5.8.).

2.- Static size is negatively correlated with share, indicating that tests for large share brands had fewer households in the panel. In section 5.2.1. it was suggested that large share brands were less likely to be affected by changes in advertising strategy than small brands; however, the results of this negative correlation may suggest that this could have been influenced by the fact that studies for these large brands had relatively fewer households and, hence, produced fewer observations. Also, the negative correlation with "TVDOLL" confirms the marginally significant finding (see table 5.19.) that studies with large dollar differences between test and control panels had relatively small static sample sizes.

3.- The negative correlation between pretest length and GRP and dollar difference suggests that studies with large differences between test and control panels had relatively short pretest lengths. This is not a "cause and effect" phenomenon but merely a condition brought about by the experimenter's decision making and the availability of pretest data.

4.- There is a positive correlation between the length of the test period and repeat rates. Clearly, the longer the test period, the more often repeat buying occasions can occur. It is interesting that the length of the test period is not significantly correlated to the occurrence of an advertising effect. This is most likely due to the lack in variability of the test length variable. The positive correlation between test length and "TVDOLL" indicates that studies with large dollar differences between test and control panels had relatively longer test lengths. This agrees with the observation made in point 2 that those studies had smaller static sizes; the longer the test period, the smaller the static size is likely to be.

5.- As can be expected, cumulative penetration is highly correlated with share; the higher the proportion of panelists trying a brand, the higher the share for that brand is likely to be. Penetration and repeat rates are not correlated with advertising effect, suggesting that changes in their levels did not appear to have been significant in observing an advertising effect.

6.- The high correlation between the share measures confirms the earlier finding of extremely well matched panels. The correlation between share and weight studies again suggests that weight studies have been conducted primarily for relatively larger brands (see also table 5.5.).

7.- Volume change is negatively correlated to share. Thus, as suggested in point 2, the higher the level of share, the less likely it is that one will observe an advertising effect and, if there is an advertising effect, the lower the absolute volume change is likely to be.

5.2.3. Discriminant Analysis.

In spite of the small sample size, a discriminant analysis was performed. Appendix VI contains the computer output of this analysis.

As can be seen from table 5.24., five different models were run. Three of these correctly classified the tests (those with and without an advertising effect) more than 60% of the time. In these three models static size ("STATIC") was significant at the 90% confidence level and the length of the test period ("TESTINT"), with exception of model #1, was also a significant, discriminating variable. The length of the pretest period ("PREINT") was also significant at the 90% confidence level in models # 3 and 5 and marginally significant in model # 1. Overall, model # 1, using static size and length of the pretest period, performed best with 71.4% of the tests correctly classified, although it was only marginally significant (88% confidence level). Model # 5 had a significance level of 99% and correctly classified the tests 66.7% of the time, using the volume change due to the change in advertising strategy ("VOL") as an additional discriminating variable. Contrary to the findings reported in section 5.2., share (used in models # 3 and 4) was not a significant variable, possibly because of the small sample sizes.

In summary, models # 1, 3 and 5 confirmed the previously reported finding that the number of observations significantly influenced the probability of identifying an advertising effect.

Discriminant Analysis Results

Model Variables	SDC*	Var. Entered	Sign.	Model C^2**	Model Sign.	Model % Correctly Classified	N
#1 STATIC	.77	STATIC	.0967	.44	.1275	71.4	43
PREINT	.61	TESTINT	.1275				
TESTINT							
#2 STATIC	1.48	STATIC	.0248	.85	.0237	35.7	25
PREINT	1.94	TESTINT	.0777				
TESTINT	-2.1	CUMRPT2	.214				
CUMTRY1							
CUMTRY2							
CUMRPT1							
CUMRPT2							
#3 STATIC	.6567	STATIC	.0098	.83	.0184	61.9	27
PREINT	.769	TESTINT	.0039				
TESTINT	-.51	PREINT	.0191				
SHARE1							
SHARE2							
#4 STATIC	1.00	TESTINT	.0009	.88	.0009	38.1	22
PREINT							
TESTINT							
SHARE1							
SHARE2							
SHARE3							
SHARE4							
#5 STATIC	.948	STATIC	.0078	.75	.0046	66.7	43
PREINT	.445	TESTINT	.0048				
TESTINT	-.55	PREINT	.0034				
VOL	1.177	VOL	.0434				

* Standardized canonical discriminant function coefficients.
** Canonical correlation.

table 5.24.

5.3. Summary and Discussion.

By using a standard statistical methodology, the individual household model, a comparison has been made of a number of established brand advertising strategy tests. By analyzing these results, insights may be obtained into the response of established brands to changes in advertising strategy.

Unfortunately, the sparse nature of this dataset has lent itself to only a limited number of analyses. Also, since the choice of test cities is not a random process and, generally, a factor of data availability, some of the findings may have been influenced by the experimenter's decision making. For instance, more weight tests were executed in diary cities and showed a higher proportion of advertising effects; more copy tests showed an effect in scanner cities. The low static sample sizes manifest the degree of panel turnover or inconsistent reporting and may also have influenced the overall results. In addition, the results discussed thus far pertain primarily to Food and Household Products since only a few Health and Beauty Aids Products were tested during this period. Finally, the largely client-dictated choice of an 80% confidence level further qualifies the findings.

A summary of the results reported in this chapter are displayed in table 5.25.:

Summary of Results

	Description	Results	Reject Hypothesis
1.-	Probability of observing a panel effect due to a change in advertising strategy.	37.1%	H5.1.
2.-	Probability of observing a panel effect due to a change in weight.	40.0%	H10.1.
3.-	Probability of observing a panel effect due to a change in copy.	33.3%	H14.1.
4.-	Probability of observing a panel effect due to a change in weight, testing adv. spending against no adv. spending.	75.0%	H11.1.
5.-	Probability of observing a panel effect in scanner cities.	35.7%	H7.1.
6.-	Probability of observing a panel effect in diary cities.	38.1%	H7.1.
7.-	Mean volume change due to a change in copy.	-7.57%	H15.1.
8.-	Mean volume change due to a change in weight.	+14.99%	H12.1.
9.-	Tests showing a panel effect had a significantly higher static size than those that did not.		H9.1.
10.-	Tests showing a panel effect had a significantly lower brand share than those that did not.		H8.1.

table 5.25.

These results may lead to some significant observations that may offer additional insights into the response to changes in advertising strategy:

1.- Regarding response to changes in advertising strategy, the effects were relatively small in number and were both positive as well as negative. For instance, overall there was less than a 40% probability of causing an effect on volume. This probability is somewhat lower than the 50% reported in the literature (see chapter 2). As far as weight tests were concerned, the probability of observing an advertising effect was similar to the percentage of weight tests that showed a significant effect as reported by Figoni (1985, unpublished; see chapter 2, section 2.3.3.). There was no significant difference in the probability of observing an advertising effect between copy and weight tests. However, testing advertising against no advertising had a 75% probability of showing an advertising effect.

2.- All copy tests showed a negative effect and all weight tests showed a positive effect. Although the sample size for copy tests is small, and, as has been shown in chapter 2, changes in copy strategy can cause positive changes, the results of this research suggest that the risk associated with changing an established brand's creative strategy is significantly greater than when its advertising weight is increased. Although the ranges varied between +5% and +45%, if advertising weight is increased and causes an effect, an average +15% change in volume can be expected. There is directional evidence that this change comes primarily from increases in penetration rates. This change is significantly larger than the changes reported in the literature and discussed in chapter 2. Also, brands with a 50% or higher share are least likely to respond to changes in advertising strategy, and as the level of share increases, the absolute volume change decreases. It was also estimated that, if an effect is observed, approximately 40% of the test brand's increase in volume comes from consumers switching to the test brand

and over 30% from increased category purchasing. Increasing weight in GRP's by 50-70% represents the largest proportion of tests showing an effect. In part this may have been influenced by the fact that large differences in weight were tested during relatively longer test periods and, therefore, had smaller static sizes. However, it supports the hypothesis that the relationship between advertising and sales is nonlinear.

3.- As was shown in chapter 4, the number of observations significantly influences the ability to estimate an advertising effect. The test results confirm that the probability of observing an advertising effect improves significantly as static sample size increases, especially when it exceeds 2,000 households. The length of the purchase cycle and the share of the brand also directly influence the number of observations. Although tests for brands with short purchase cycles did not show a significantly larger number of effects than those with long purchase cycles, directional evidence exists. With respect to share, there was no difference in the proportion of copy or weight tests showing an effect; the former had been conducted primarily for brands with small shares, whilst weight tests had been conducted for brands with relatively larger shares. Given that larger shares could potentially increase the number of observations, one would have expected to have observed relatively more advertising effects. Yet, for large share brands, the opposite was found, possibly suggesting that it is difficult to positively affect an already large share brand.

Thus far, the findings have been confined to the overall effect on volume without further insight into the dynamics underlying an advertising effect. The effect of changes in advertising strategy on certain consumer segments or on measures such as penetration, repeat or amount bought, has not been examined yet in detail. An exception to that is the "Source of Volume" analysis in section 5.1.8., which indicated that, indeed, the effect of changes in advertising strategy on certain segments of the panelists such as triers or repeaters can be identified. Therefore, in the next chapter the same advertising strategy tests will be analyzed at the disaggregate level to identify the dynamics underlying the response to changes in advertising strategy.

Chapter 6

Empirical Norms II:
Analysis of Advertising Strategy Tests
at the Disaggregate Level.

In chapter 5, advertising effects were identified and estimated by adjusting each individual household's average brand volume in the test period for certain pretest and test conditions. Then, by comparing all households in the test panel with all households in the control panel, the effect of a change in advertising strategy was determined. Clearly, a shortcoming of aggregating households into the test and control panels is the consequent impossibility of investigating whether or not the change in advertising strategy affected certain groups of test panelists differently than it affected others, as has been argued in chapter 2.

Therefore, a need exists to further analyze the thirty-five advertising strategy tests and to identify the effects on certain segments of the test panelists. This needs to be accomplished not only for tests in which an overall panel effect already has been identified (chapter 5), but also for tests in which no overall effect was detected. In the event that buyers who were affected represented only a small percentage of the total test panel brand volume, the analytical approach would not have detected an advertising effect by looking at the test panel as a whole.

In this chapter a survey will first be made of behavior-based variables for segmentation that have been identified in the literature, in order to select appropriate means for segmenting TMG's panelists. The appropriate variables will then be used to further analyze the response to changes in advertising strategy at disaggregate levels (i.e., effects on penetration, repeat and amount bought).

Thus, the remaining hypothesis regarding advertising strategy to be tested in this chapter is:

H6.0. The probability of an advertising strategy change to cause an effect at a disaggregate level** is less than 50%.

H6.1. The probability of an advertising strategy change to cause an effect at a disaggregate level** is equal to or greater than 50%.

The remaining hypothesis regarding <u>weight</u> strategy to be tested in this chapter is:

H13.0. If a change in advertising weight causes a panel effect* it is more likely to influence the number of consumers repeating (repeat) than the number of consumers buying (penetration).

H13.1. If a change in advertising weight causes a panel effect* it is more likely to influence the number of consumers buying (penetration) than the number of consumers repeating (repeat).

The remaining hypothesis regarding <u>copy</u> strategy to be tested in this chapter is:

H16.0. A change in copy strategy is more likely to influence the number of consumers repeating (repeat) than the number of consumers buying (penetration).

H16.1. A change in copy strategy is more likely to influence the number of consumers buying (penetration) than the number of consumers repeating (repeat).

* Panel effect: effect on the test brand's volume identified at the aggregate panel level.

** An effect at a disaggregate level: effect on the test brand's volume identified at the disaggregate level such as effects on triers or repeaters.

6.1. Approaches to Segmentation.

Market segmentation is a fundamental concept in marketing. It has a solid theoretical base, having been derived from microeconomic models of price discrimination. However, as Smith (1956) argued, the market environment is heterogeneous and not homogeneous, the latter having been a basic assumption coming from classic economic theory. Hence, perhaps, the development of market segmentation since marketing appeals could now emphasize selective buying motives rather than primary buying motives. Market segmentation also seems intuitively acceptable since it assumes that consumers differ; this approach, therefore, may offer a strong orientation toward improving marketing strategy and tactics. Since Smith's (1956) article a significant number of articles have appeared in the segmentation literature, describing new bases on which to create segments, new techniques for statistical analysis, and new reports of applications of segmentation in the real world.

Wilkie and Cohen (1977) defined market segmentation as essentially "a managerial strategy of adaptation to the existence of various demand curves in a market". As such, it consists of dividing the consumer market into meaningful buyer groups for purposes of identification, and creating specific marketing mixes for these groups such that profits are increased.

According to Wilkie and Cohen (1977), a "true" segment must have two basic characteristics: behavioral potential and efficiency potential. Behavior refers to purchase or consumption, and efficiency refers to the cost-benefit associated with different marketing mixes developed for specific groups. Or, said differently (Brandt, 1966), "markets are segmented in an effort to optimize the profits returned on marketing dollars invested to produce revenues". Note that efficiency refers not only to promotional issues, the focus of almost all past segmentation research, but also distribution, product, and pricing decisions. While the application area of market segmentation has been identified as crossing the entire marketing mix, optimizing advertising strategy remains the focal point of this research.

In reviewing the segmentation literature, Frank, Massy and Wind (1972) and Wilkie and Cohen (1977) concluded that the process of segmentation has not been uniformly successful. In spite of the fact that it has assisted in identifying new and profitable marketing opportunities in quite a few cases, segmentation has failed to increase marketing effectiveness.

Wilkie and Cohen (1977) suggested that there have been, overall, two different streams of segmentation research and argued that the main reason there have been contradictory results and conclusions in the segmentation literature is that the literature itself is segmented. They identified a "correlation" stream and a "product-instrumentality" stream. The former tends to begin with actual behavior and then searches for variables that may be correlated with that behavior. It is aimed at describing potential market segments in terms of highly correlated attributes. The latter stream, conversely, begins with an interest in why consumers behave the way they do, and then asserts functional relationships between wants and goals, attitudes and subsequent behaviors. In summary, the two streams begin with important differences in theoretical and problem orientation, which lead to differing views as to relevant behavior and bases for market segmentation.

Various authors have attempted to introduce more rigor into the entire market segmentation process. Kuehn and Day (1962) suggested a 7-step approach in what they called a consumer preference analysis, a method for matching product features to consumer wishes. Brandt (1966), offered an 8-step approach, whereas Hanan (1968) suggested a 3-step approach. Claycamp and Massy (1968) proposed a normative theory of market segmentation using a multistage mathematical model in which segmentation is considered a process of aggregation rather than disaggregation. Their argument was that one builds a viable segmentation strategy rather than taking a market apart to find one. A somewhat different theory was proposed by Lessig (1972), who argued that a decision process approach to consumer behavior could be applied successfully. By understanding why consumers behave as they do, one could classify them into homogeneous groups of consumers who respond similarly to marketing stimuli. His theory was based on the belief that there is a relationship between common buying behavior patterns, personal characteristics, and response functions to marketing stimuli.

There is a critical distinction between differentiation and segmentation. Smith (1956) suggested that differentiation is concerned with "bending demand to the will of supply and with distinguishing the products of one particular seller from those of others, while segmentation is designed to differentiate some subgroups of products of the firm". Therefore, a successful differentiation strategy should result in an increased horizontal share of a generalized market whilst a successful segmentation strategy should result in an increase in share within a particular market segment. Both strategies, though, are frequently complementary, according to Smith. Sissors (1966) also suggested that a policy of market segmentation should increase market share in specific, carefully defined submarkets. Michman (1970) supported this by arguing that certain consumer goods manufacturers have overcome consumer resistance through the use of alternate strategies of product differentiation and market segmentation. He showed how behavioral analysis (based on such theories as thresholds, perception, association, and so on) can strengthen these two strategies. Earlier, Kotruba (1966) had proposed a "strategy selection chart" that presented a conceptual view of the process of strategy selection within a framework of product differentiation versus market segmentation.

A number of variables have been used for segmenting markets such as personality, socioeconomic variables, lifestyle and psychographics, attitudes and behavior. As was noted above, a review of the published segmentation research to date suggests a wide range of results (see, for instance, Michman, Gable and Gross, 1977, for a review of the segmentation literature). For instance, socioeconomic variables have only been moderately successful as a basis for segmenting markets. Yankelovich (1964) believed that the "old, unquestioned assumption that demography is always the best way to look at markets, should be discarded" and Samli (1968) argued strongly for the use of factors other than demographic characteristics. However, the inability of socioeconomic variables to explain a substantial part of the variance in usage rates of consumers does not imply that there are not substantial differences in the mean usage rates for different socioeconomic market segments (Bass, Tigert and Lonsdale, 1968).

Personality as a variable for segmentation has also produced "equivocal" results (Kassarjian, 1971). That is, in most cases no relationship was found and in the few cases where it was found, the relationship was so weak that it was not reliable (see, for instance, Myers, 1967; Robertson and Meyers, 1969).

Other variables, such as life style, psychographics, attitudes and benefits also have produced mixed results (see, for instance, Moore, 1963, and Haley, 1968, 1971 and 1984).

In any case, most of these cannot be used in the proposed analysis of effects of advertising strategy at a disaggregate level (that is, on certain groups of panelists). Personality, lifestyle and psychographic data are not available from TMG's panelists and cannot be obtained by carrying out additional survey research since TMG guarantees its panelists anonymity. Also, the cost associated with obtaining these data is prohibitive, especially given the inconclusive results reported in the literature. Socioeconomic data are available, but to date, for reasons suggested above, have not provided significant insights into most TMG tests. Generally, these data exhibit little variability, which makes the task of relating changes in them to changes in behavioral data difficult. In addition, 2,000 households do not provide sufficient observations for the application of techniques such as AID, cluster analysis or discriminant analysis. Therefore, it was decided to further analyze the advertising strategy tests using behavioral data, which in TMG's case is readily available. A more in-depth investigation was thus made into behavior-based segmentation variables, in particular into the use of brand loyalty, since, for established brands, advertising strategy is often aimed at brand loyal consumers (see, for instance, Jones, 1986).

6.1.1. Brand Loyalty as a Basis for Segmentation.

Among behavioral variables, certain measures of brand loyalty (BL) can be used as a basis for market segmentation. A considerable body of knowledge is available in this area, although more than five decades of research do not appear to have produced an appropriate conceptual or operational definition of BL. In spite of that, some evidence exists (see, for instance, Raj, 1982) that brand loyalty-based analysis of buyer segments may show additional insights into the response to advertising changes.

The first study addressing the concept of loyalty was done by

Copeland (1923). He theorized that a specific, consistent attitude towards a brand may have certain implications for buyer behavior. Not until 1932, though, when the Psychological Corporation (Jacoby and Chestnut, 1978, p. 10) started to study trends in market share for some fifteen hundred different brands, was the issue of BL revisited. Shortly thereafter, a number of different approaches emerged to measure BL. These studies were survey-based (such as Jenkins, 1938) or panel-based (Churchill, 1942). Churchill argued that BL can only be measured by observing the total purchases of a fixed group of consumers over time. The survey method, which was questionnaire-based, clearly offered only a limited number of observations across a non-fixed group of consumers, and did not necessarily allow for measurement of all purchases. Churchill's behavioral, macro approach was followed by Guest's (1944) micro, attitudinal approach, which probably was the first such study linking individual behavior to attitudes.

Two studies in particular may have contributed to the increase in "popularity" of the BL concept. The first one was by McGregor (1940) and the second by Brown (1952 and 1953). McGregor's approach identified a relationship between advertising and BL and argued that certain strategies could cause switchers to become loyal buyers. Brown used purchase records of a consumer panel and identified purchase patterns (such as AAAAAA or ABABAB). To judge by the amount of attention given to his findings in the literature, Brown's was probably the better received definition of BL at that time. However, it should be noted that his findings were merely an observation of purchase patterns and, as is the case with all behaviorally-based measures, did not provide an explanation of why such patterns existed.

Two subsequent studies took Brown's results one step further in that they attempted not only to identify and define BL but also to measure it. Cunningham (1956) used what is now known as the share of requirements method in which he calculated the proportion of a consumer's total category purchases for a number of specific brands. A consumer was said to be loyal to the brand that received the highest share of category purchases. Although the method did not provide clear guidelines as to what the minimum cut-off was, it did address the previously ignored issue of multiple brand loyalty. The second study (Pessemier, 1959) used experimental data. In a laboratory setting, Pessemier increased the price of the consumer's most preferred brand up to the point where the consumer switched. In some way this was a measure of strength of BL rather than an absolute measure.

The late 50's and early 60's can be characterized by the application of advanced methodologies to the concept of BL. Kuehn (1958) proposed a linear learning model of BL, and Lipstein (1959) used the concept of a Markov transition matrix. Both approaches were based on stochastic processes and could be used in both the identification as well as the prediction of BL. Lipstein further calculated two indices of BL: the probability of repurchase and the average staying time with a brand. Later, Frank (1962) suggested other measures of BL: the repeat purchase probability and the return purchase probability, both based on Kuehn's stochastic, linear-learning theory. Lipstein's transition matrices were based on consecutive purchases by consumer panelists of certain brands.

Measuring the probability of repurchasing the brand bought previously, then, provided for an estimate of the consumer panelist's loyalty to those brands as well as the probabilities of switching to another brand.

Subsequent to these studies, alternative measures were proposed by Farley (1964a and 1964b), who took a somewhat economic approach to loyalty, and Ehrenberg (1971), who theorized that the negative binomial distribution could provide an accurate prediction of the magnitude of repeat purchase. Other studies during the middle and late 60's do not seem to have had a major impact on the course of the published research during the 70's.

During the late 60's there was a definite trend away from applying stochastic modeling to BL. For instance, Cunningham (1967) grouped consumers into different loyalty groups on the basis of their own anticipated behavior if their preferred brand was out of stock, and Sheth (1968) applied a factor-analytic model to two behavioral measures: share of requirements and purchase pattern. Massy, Frank and Lodahl (1968), also using panel data and including a measure for store loyalty, confirmed Sheth's approach.

Specific applications of other BL measurement techniques were proposed by Livesey (1973) in the context of rental agreements and Fry, Shaw, Haehling von Lanzenauer, and Dipchand (1973), who used longitudinal data (bank account records) to measure BL. The work by Fry et al. was particularly interesting since they argued that stable loyalty patterns were developed at an early age and carried over into adult life. McCann (1974) returned to the measure of share of requirements discussed earlier, and Charlton and Ehrenberg (1976), like Nordstrom and Swan (1976), suggested a behavioral index that defined BL on the basis of the number of times a brand of tea was purchased during a given 6-week period that was free of marketing activity.

In addition to the studies mentioned above, again illustrative of the wide variety of different approaches, Barker and Trost (1973), among others, suggested that one define market segments only on the basis of behavior, namely by the volume consumed. Using the Chicago Tribune diary panel of some seven hundred households, Twedt (1964) looked at the degree of purchase concentration in eighteen product categories. He found that purchase concentration was a much more powerful measure for segmentation purposes than demographics. Cunningham (1961) concluded that families with high store loyalty were somewhat more loyal to the particular brands they purchased than were families with low store loyalty. Farley (1964a) found that a modest and irregular relationship existed between the quantity of a product purchased by a household and its tendency to be brand disloyal. There was also a negative correlation between loyalty measures and income, indicating that high-income families tend to be brand disloyal. In a later study, Farley (1964b) looked at BL across sixteen household products and found that brand switching in a particular product class appeared to be associated with price activity, distribution, characteristics of the supply structure, and the importance of the product in the consumer's consumption pattern.

In short, the published research on BL shows a myriad of operational definitions. All in all, more than fifty alternative definitions have been proposed (Jacoby and Chestnut, 1978). This may suggest a lack of agreement in the fundamental definition of BL and has resulted in a variety of measurements of different behavioral or attitudinal phenomena.

The results of the various approaches have been "mixed". Frank (1967) even questioned the usefulness of BL as the basis for segmentation. He concluded that the pattern of results for BL as a basis for market segmentation in food products was not encouraging. BL consumers almost completely lacked identifiability in terms of either socioeconomic or personality characteristics. Also, loyal consumers did not appear to have economically important differences in their sensitivity either to the short run effects of pricing, dealing and retail advertising, or to the introduction of new brands. Additional evidence of the questionable nature of the results was given by Frank, Douglas and Polli (1968), who looked at the purchase histories of four hundred and ninety-one households for forty-four grocery products. In particular they wanted to identify relationships between income level, shopping patterns and rate of consumption on the one hand and household brand loyalty on the other hand. They found that educational level, the number of persons in the family and the age of the youngest child were negatively associated with BL. Factors that were positively related to BL were building size and average price per unit. Webster (1965), in his study on deal proneness, had also found that deal-prone consumers held less BL than those who were not as deal-prone. On the other hand, McConnell (1968) found that BL was significantly related to both time (measured by total purchase selections) and perceived quality (measured by price). And, lastly, Tucker (1964) found that some consumers will become brand loyal even when there is no discriminable difference between brands other than the brand itself.

In summary, Jacoby and Chestnut (1978), in examining the operational definitions of BL proposed in the literature, divided them into three major categories: definitions based on behavior, attitudes, and behavior and attitudes combined. Definitions based on composite measures, such as brand insistence or price-until-switching have been reported as having provided additional discriminating power between buyers. For instance, behavior-based definitions can overstate the "true" degree of loyalty, whereas composite-based definitions have shown that "loyal" consumers, defined as such by behavioral measures, were no longer "loyal" when both behavioral and attitudinal measures were combined (Day, 1969). Also, the linking of attitudes and behavior, albeit a controversial as well as an intuitively appealing approach, seems to be a promising avenue (see, for instance, Jacoby and Olson, 1970).

6.1.2. Behavior-Based Definitions of Brand Loyalty.

Definitions based on behavioral measures have in common the fact that BL is measured on the basis of actual or self-reported purchasing behavior such as proportion of purchase, sequence of purchase or probability of purchase. These behavior-based definitions outnumber the attitudinal or composite based definitions and were more widely used during the early period of development of the area of BL.

In general, the criteria used to define loyalty were somewhat arbitrary and simplistic; for instance, what distinguishes a loyal buyer from a disloyal buyer, or, can a loyal buyer be loyal to more than one brand? An important shortcoming of these definitions is the unspecificity about the unit of measurement. That is, should the unit of measurement be the family or the individual? Most of the proposed units of measurement were based on panel data that, like TMG's, do not identify the actual purchaser. Also, these definitions are based on a measure of the actual outcome of behavior, and do not attempt to understand the underlying phenomena yielding that specific behavior. Finally, little or no evidence is provided about their reliability, validity or even sensitivity.

One behaviorally based measure of BL that has appeared frequently and that will be used in subsequent analyses of TMG advertising strategy tests, is repeat sales. Repeat sales do not come only from the occasional buyer who becomes a more regular buyer, but can also come from the increased amount bought by the repeat purchaser, from the purchasers attracted from competing brands who stay with the brand, and from regular buyers of the brand who stay with the brand as opposed to switching to other brands.

Two major philosophies exist regarding the measurement of repeat purchase behavior (RPB). The first one is based on the notion that a random component underlies basic changes in the market structure. The mathematical models representing this view have been successfully applied by such people as Ehrenberg (1972) and Bass (1974). In particular, these models have proved useful in designing and evaluating marketing strategies (Bass and Wright, 1976). However, these applications seem most successful when applied to aggregate buyer behavior measures.

The second philosophy assumes the existence of causes that lead to RPB. This approach argues that the manager does have some influence over the consumer and can cause changes in or sustaining of certain behavior. It argues that repeat behavior does not just happen and that there are underlying causes. The understanding of these underlying causes allows the manager to attempt to influence the consumer's behavior in favor of his brand. Those approaching the RPB concept from this point of view have done so from various angles, assuming that RPB is a multifaceted phenomenon of which certain elements can be understood. The part that can be "estimated" is the part of RPB that is deterministic in nature and that Jacoby and Chestnut (1978) call brand loyalty.

6.2. Results of the Analysis of Effects of Changes in Advertising Strategy at the Disaggregate Level.

6.2.1. Analytical Framework.

Assessment of a certain measure of BL as a basis for market segmentation should be based on the validity, reliability and sensitivity of this measure: that is, does the measurement encompass all aspects of the behavior or attitude and does it indeed measure what it is supposed to? Also, does the measurement yield consistent results and can it distinguish different intensities of the behavior or attitude? After more than half a century of research, there does not seem to be agreement on the operational definition of BL. What is needed, according to Jacoby and Chestnut (1978), is a "concentrated effort that focuses on the development and validation of BL measures".

Although BL measures based on additional data sources such as attitudinal measures seem to have enhanced the insights into each segment's response to marketing stimuli, an argument can be made that what is needed first is an assessment of the appropriate analytical framework to measure these responses. However, in the absence of attitudinal data within the TMG system, the responses of different segments during advertising strategy tests can only be analyzed on the basis of behaviorally defined measures. It is recognized, though, that some of the shortcomings of behaviorally based measures, such as their simplicity and their "vagueness" around the unit of measurement (household or individual) are not addressed. Nor is one of the major weaknesses of behaviorally based measures addressed, namely, that the underlying phenomena leading to the specific behavior are unknown, since the analysis will only attempt to quantify the degree to which behavior changes are due to a change in advertising strategy.

Thus, two behavior-based segmentation variables will be used to further analyze the responses of different segments to changes in advertising strategy. The first one is Jacoby and Chestnut's definition of BL. Their definition, based on six necessary and collectively sufficient conditions, suggests that BL is:

1.- biased (i.e., non-random),
2.- behaviorial (i.e., purchase),
3.- expressed over time,
4.- by some decision making unit,

5.- with respect to one or more alternative brands out of a set of such brands, and,
6.- a function of psychological (decision-making, evaluative) processes.

Although the psychological aspect of their measure cannot be included, the analytical approach used in this chapter satisfies the remaining five conditions.

The second approach is based on the volume bought, which will segment buyers into heavy and light buyers. (This issue was briefly addressed in the section 5.1.8. "Source of Volume" analysis.)

In addition, the effect of changes in advertising strategy on panelists trying the test brand will be examined.

The same thirty-five advertising strategy tests that were used in chapter 5 were further analyzed at disaggregate levels. The data for this part of the analysis were also obtained from the hard copy reports. Thus, as before, this meant that for only a certain number of these tests were data available since the analysis at the disaggregate level had not been performed for all thirty-five tests.

6.2.2. The Effect of Changes in Advertising Strategy on Triers.

Clearly, the effect of changes in advertising strategy can affect the number of people buying the test brand for the first time. For instance, an increase in advertising weight can result in more exposures reaching more potential consumers, as suggested by McDonald

(1970), and a new copy strategy can appeal to different consumers.

In analyzing the effect on penetration, a comparison was made between the cumulative penetration rates in the test panel and the control panel, after adjusting for pretest differences in the same manner as was described in chapter 4.

As table 6.1. indicates, in eight of the thirteen advertising strategy studies that showed an advertising effect, an analysis was performed to identify the effect on penetration. Seven of those, or 87%, showed a significant effect on penetration. In other words, in those studies where a significant panel effect was identified, the increase in volume came from an increase in the number of buyers who had not bought the test brand before.

Probability of Advertising Effect on Penetration

	%(#) of Total Studies	**%(#) of Studies Analyzed for Effect on Penetration**	**%(#) Showing Effect on Penetration**
Adv. effect at aggr. level	37.1 (13)	61.0 (8)	87.0 (7)
No adv. effect at aggr. level	62.9 (22)	36.0 (8)	63.0 (5)
Total studies	(35)	(16)	(12)

table 6.1.

This finding complements the observation made in section 5.1.7., where directional evidence was identified of the effect on penetration, and in section 5.1.8., where it was estimated that an average of 25% of the test brands' volume increases came from new buyers. Also, some of the test brand buyers may have been first time category buyers, hence the category effect observed in chapter 5. Thus, when estimated, a change in advertising strategy almost always affected penetration and has represented an average of 25% of the test brand's volume increase.

In eight of the twenty-two tests that did not exhibit an aggregate panel effect, a further analysis was done to determine whether penetration was affected. Interestingly, for five of these, or 63%, a significant effect on penetration was estimated. For two studies an actual negative effect was found. Clearly, the effect on penetration was not large enough to be observed at the overall panel level but was nevertheless significant amongst triers of the brand.

Table 6.2. shows the effect on penetration for weight and copy studies separately. Because weight studies outnumber copy studies, the results for the former are more robust. Interestingly, if an effect was identified for weight studies and the effect on penetration was estimated, six out of six, or 100%, of the studies showed an effect on penetration. This was the case for only 50% of the copy studies. In those instances where no aggregate panel effect was estimated, still three out of five weight studies, or 60%, showed an effect on penetration; this was about equal to the 66.7% of the copy tests. A negative effect on penetration was observed for one weight test and one copy test, but in each case the effect was too small to be identified at the aggregate level.

Probability of Advertising Effect on Penetration by Type of Test

	%(#) of Total Studies	%(#) of Studies Analyzed for Effect on Penetration	%(#) Showing Effect on Penetration	
			Pos.	Neg.
Weight test				
adv. effect at aggr. level	40.0(10)	60.0(6)	100.0(6)	--
no adv. effect at aggr. level	60.0(15)	33.3(5)	60.0(3)	20.0(1)
Copy tests				
adv. effect at aggr. level	30.0(3)	66.7(2)	50.0(1)	--
no adv. effect at aggr. level	70.0(7)	42.9(3)	66.7(2)	33.3(1)

table 6.2.

6.2.3. The Effect of Changes in Advertising Strategy on Repeaters.

In general, repeat was affected fewer times than penetration in both weight and copy tests. Table 6.3. shows that, across both weight and copy studies, an effect on repeat was identified in only one of the eight tests for which an analysis was performed to identify an effect on repeat and that also had shown a panel effect. In none of the tests where no panel effect was identified was repeat affected by a change in advertising strategy.

Probability of Advertising Effect on Repeat

	%(#) of Total Studies	**%(#) of Studies Analyzed for Effect on Repeat**	**%(#) Showing Effect on Repeat**
Adv. effect at aggr. level	37.1 (13)	61.0 (8)	12.5(1)
No adv. effect at aggr. level	62.9 (22)	36.0 (8)	0.0(0)

table 6.3.

As table 6.4. shows, the study in which repeat was affected was a copy test and only two of those had been analyzed for an effect at a disaggregate level.

Probability of Advertising Effect on Repeat by Type of Test

	%(#) of Total Studies	**%(#) of Studies Analyzed for Effect on Repeat**	**%(#) Showing Effect on Repeat**
Weight tests			
adv. effect at aggr. level	40.0(10)	60.0(6)	0.0(0)
no adv. effect at aggr. level	60.0(15)	33.3(5)	0.0(0)
Copy tests			
adv. effect at aggr. level	30.0(3)	66.7(2)	50.0(1)
no adv. effect at aggr. level	70.0(7)	42.9(3)	0.0(0)

table 6.4.

In summary, these data suggest that an increase in advertising weight did not affect repeat rates. No conclusions can be drawn for copy tests because of the small sample size.

Combining the results of the effects on penetration and repeat, it appears that changes in advertising strategy affect penetration more often than repeat; even for tests showing no aggregate panel level effect, penetration is affected in more than 60% of the cases.

6.2.4. The Effect of Changes in Advertising Strategy on Buying Rate.

As has been argued, a change in advertising strategy can affect the amount consumers buy. Table 6.5. shows that across both weight and copy tests at least 80% of those tests that were analyzed for an effect on buying rate showed such an effect regardless of the identification of an aggregate panel effect. Five out out six tests, or 83%, which had a panel effect and for which this analysis was performed, showed an effect on buying rate, which was approximately equal to the four out of five tests, or 80%, for those studies that did not show an aggregate panel effect.

Probability of Advertising Effect on Buying Rate

	%(#) of Total Studies	**%(#) of Studies Analyzed for Effect on Buying Rate**	**%(#) Showing Effect on Buying Rate**	
			Pos.	**Neg.**
Adv. effect at aggr. level	37.1(13)	46.2(6)	83.3(5)	16.7(1)
No adv. effect at aggr. level	62.9(22)	22.7(5)	80.0(4)	20.0(1)

table 6.5.

Table 6.6. shows that all weight tests (100%) that were analyzed for an effect on buying rate showed such an effect whereas only 50% of the copy tests exhibited such a response. Two copy tests produced a negative response. In chapter 5 it was shown that all copy tests showed a negative response, so it may be concluded that if a change in copy strategy affects the test brand's volume, in all likelihood it is because it affects the amount people buy rather than the number of people buying. Clearly, as was noted in chapter 5, the risk associated with changes in copy strategy is greater than for weight tests and seems to be manifested by the decrease in the amount consumers buy.

Probability of Advertising Effect on Buying Rate by Type of Test

	%(#) of Total Studies	**%(#) of Studies Analyzed for Effect on Buying Rate**	**%(#) Showing Effect on Buying Rate**	
			Pos.	**Neg.**
Weight test				
Adv. effect at aggr. level	40.0(10)	40.0(4)	100.0(4)	
No adv. effect at aggr. level	60.0(15)	13.3(2)	100.0(2)	
Copy tests				
Adv. effect at aggr. level	30.0(3)	66.7(2)	50.0(1)	50.0(1)
No adv. effect at aggr. level	70.0(7)	42.9(3)	66.7(2)	33.3(1)

table 6.6.

6.2.5. The Effect of Changes in Advertising Strategy on Heavy vs. Light Buyers.

Segmenting consumers by the amount bought led to an investigation of heavy vs. light buyers. The effect on heavy vs. light category buyers was estimated for only a few tests. "Heavy buyers" were those panelists who represented a "substantial" percentage of the total category volume. This was different for each test but in general followed the "80/20" rule (see, for instance, Shapiro and Kirpalani, 1984), in which 20% of the category buyers represented about 80% of the total volume.

Table 6.7. shows that this analysis was conducted for weight studies only and that in two of the three weight studies, heavy buyers were affected. In one study the effect was on light buyers.

Interestingly, 60% of the tests for which no aggregate panel effect was identified showed an effect on light buyers and one additional weight test showed a negative effect.

Probability of Advertising Effect on Heavy/Light Buyers by Type of Test

	%(#) of Total Studies	%(#) of Studies Analyzed for Effect on Heavy or Light Buyers	%(#) Showing Effect on Heavy	Light
Weight tests				
Adv. effect at aggr. level	40.0(10)	30.0(3)	66.7(2)	33.3(1)
No adv. effect at aggr. level	60.0(15)	26.6(4)	0.0(0)	50.0(2)
Copy tests				
Adv. effect at aggr. level	30.0(3)	0.0(0)	--	--
No adv. effect at aggr. level	70.0(7)	14.3(1)	0.0(0)	100.0(1)

table 6.7.

As was noted in section 6.2.2., a change in advertising strategy, in particular for weight tests, causes an effect on heavy or light buyers in approximately half the cases [(5+13):35=51.4%].

The fact that heavy category buyers respond significantly more often to changes in advertising strategy than do light buyers is supported by the observations made with respect to the effects on penetration (section 6.2.2.) and category (section 5.1.8.). The data suggest that heavy category buyers are more likely to try the test brand than those who are "occasional" or light buyers. To convince this latter group to make an additional category purchase does not seem to be achieved by changing advertising weight. A change in copy strategy is more likely to cause this to happen, and other marketing activities such as promotion or pricing may also be more effective.

6.3. Conclusions.

In chapter 5 the overall effect of changes in a brand's advertising strategy on that brand's total volume was estimated. Subsequently, in this chapter an attempt was made to identify the effect of changes in advertising strategy on the components of the test brand's volume: penetration (new/lost buyers), repeat (switching to and from brands) and buying rate.

In order to be able to perform this analysis, the need existed to group panelists into different segments. A review of the segmentation literature suggested a number of variables to be used in grouping consumers. Socioeconomic variables, which had shown mixed results to date both in the literature as well as in studies conducted within TMG, and attitudinal variables, which are not available within the TMG system, were necessarily excluded from consideration. Hence, a behaviorally-based definition of BL was applied. This was Jacoby and Chestnut's (1978) definition of which all conditions, with the exception of an attitude measurement, were satisfied.

The analysis of the test results included not only tests for which an aggregate panel effect had been identified, but also those for which no aggregate panel effect had been identified, since it was conceivable that an effect on penetration or repeat was significant but too small to be observed at the aggregate panel level.

In general, it was found that if an advertising effect was observed at the aggregate panel level, in almost all cases an effect on either penetration, repeat or buying rate could be estimated. However, even if an advertising effect could not be estimated at the panel level, an advertising effect could still be identified on one or more of a brand's volume components; these significant effects on volume components were too small to be observed at the aggregate level. Therefore, it could be argued that the number of tests showing any effect is significantly higher than the 37.1% suggested in chapter 5. In fact, if the effect on penetration and repeat is considered an "advertising effect" even if no aggregate panel effect was identified, twenty-one (8+13) out of thirty-five tests, or 60%, showed an effect due to a change in advertising strategy. This number is obviously biased by the fact that an analysis at a disaggregate level was not conducted for all studies. However, assuming that the analysis at the disaggregate level was conducted for a representative sample of studies for which no aggregate effect was identified, the percentage of tests that responded to changes in advertising strategy is significantly higher than was estimated in chapter 5 and that has been reported in the literature (see chapter 2).

With respect to increases in advertising weight, an effect on the test brand's volume seems to have been caused by an increase in penetration for that brand. Even if no aggregate panel effect was identified, an effect on penetration was still observed in more than 60% of the weight and copy tests. Since most brands included in this database are in an established category, this finding would suggest that a significant amount of brand switching occured when consumers were exposed to more advertising. By contrast, it was significantly less likely to observe an effect on penetration at the aggregate panel level due to a change in copy strategy. Clearly, copy tests seem more likely to affect repeat rates and cause declines in the amount consumers buy. Due to the small sample sizes these findings, however, may not be conclusive. Also, weight tests always affected the amount consumers bought whereas copy tests were significantly less likely to do so.

The findings reported in this chapter are summarized in table 6.8. and figures 6.1., 6.2., and 6.3. As can be observed from table 6.8., Hypotheses H6.0 and H13.0 are rejected, whereas a conclusion for Hypothesis H16 can not be reached due to the small sample size of the copy tests included in this database. Hypotheses relating to the effects on buying rate and the effects on heavy and light buyers were not established in chapter 3. In any case, findings would have been inconclusive due to the small sample sizes.

Summary of Results

	Description	**Results**	**Reject Hypothesis**
1.-	Probability of observing an effect at a disaggregate level	60.0%	H6.0.
2.-	Probability of observing an effect on penetration due to a change in weight:		
	if effect at aggr. level....	60.0%	
	if effect at disaggr. level	100.0%	H13.0.

3.- Probability of observing an effect on repeat due to a change in weight:		
if effect at aggr. level....	0.0%	
if effect at disaggr. level..	0.0%	H13.0.
4.- Probability of observing an effect on penetration due to a change in copy strategy	50.0%	H16. (inconclusive due to small sample size)
5.- Probability of observing an effect on repeat due to a change in copy strategy	50.0%	H16. (inconclusive due to small sample size)
6.- Probability of observing an effect on buying rate due to a change in weight:		
if effect at aggr. level......	100.0%	N/A
if effect at disaggr. level...	100.0%	N/A
7.- Probability of observing an effect on buying rate due to a change in copy:		
if effect at aggr. level.......	50.0%	N/A
if effect at disaggr. level...	66.7%	N/A
8.- Probability of observing a negative effect on buying rate due to a change in copy:		
if effect at aggr. level........	50.0%	N/A
if effect at disaggr. level...	33.3%	N/A

9.- Probability of observing an effect due to a change in weight on:		
heavy buyers..................	66.7%	N/A
light buyers...................	33.3%	N/A
10.- Probability of observing an effect due to a change in copy on:		
heavy buyers...................	0.0%	N/A
light buyers...................	0.0%	N/A

table 6.8.

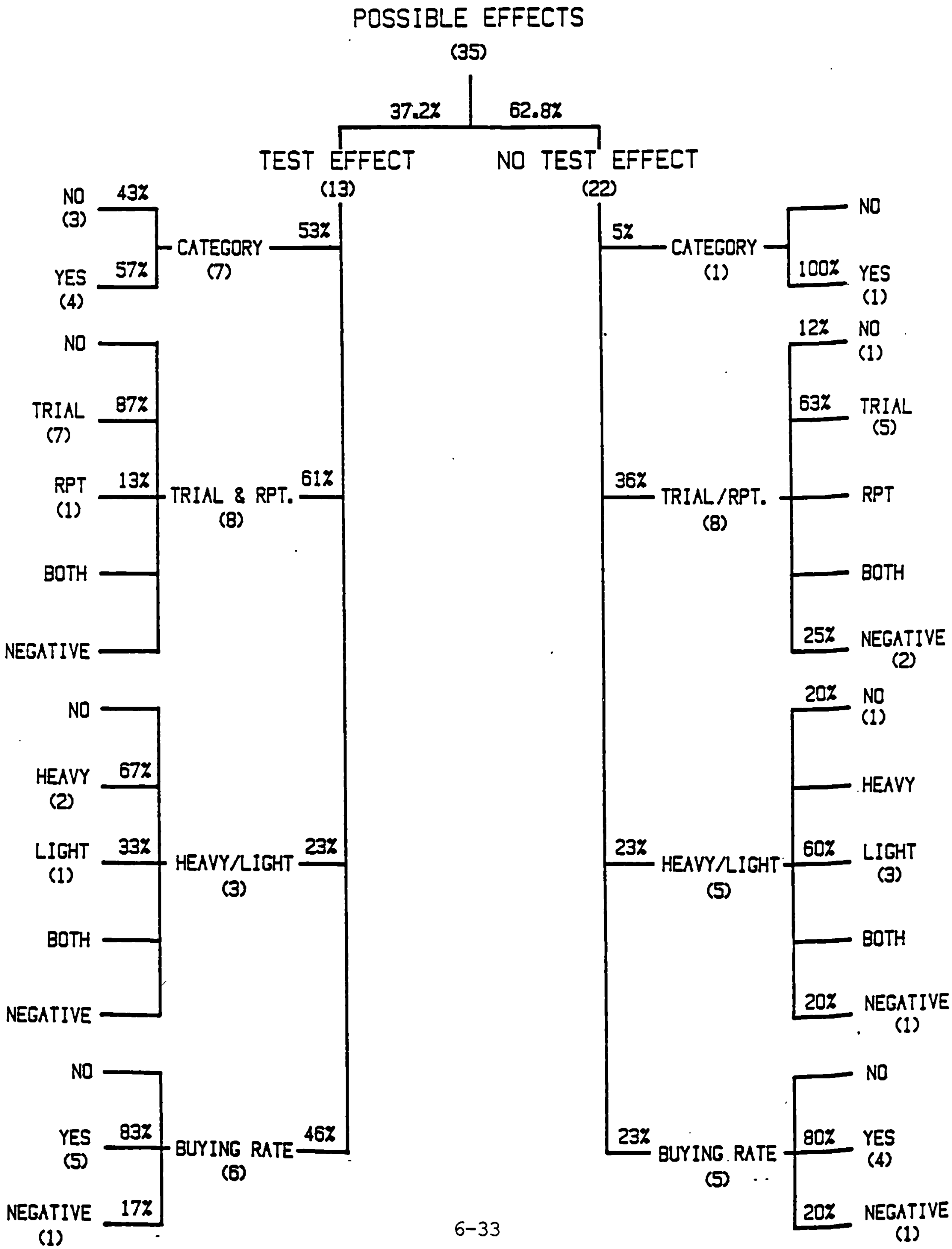
insert figures 6.1., 6.2. and 6.3. here

In summary, weight tests caused consumers to be more likely to switch to the test brand and buy more of it (especially heavy buyers), and less likely to affect repeat rates. Copy tests were more likely to negatively affect repeat rates and amount bought, and less likely to positively affect penetration (with the possible exception of light buyers) or repeat.

In the next chapter the degree to which these findings relate to key advertising strategy issues for established brands will be discussed. In particular, the ability of TMG's system to address these issues will be examined. In Appendix I, an alternative, experimental system will be proposed to further address these strategic advertising issues, and the results of an exploratory investigation into the usefulness of this system will be evaluated.

figure 6.1.

COPY AND WEIGHT ON ESTABLISHED BRANDS



[redacted]

WEIGHT ON ESTABLISHED BRANDS

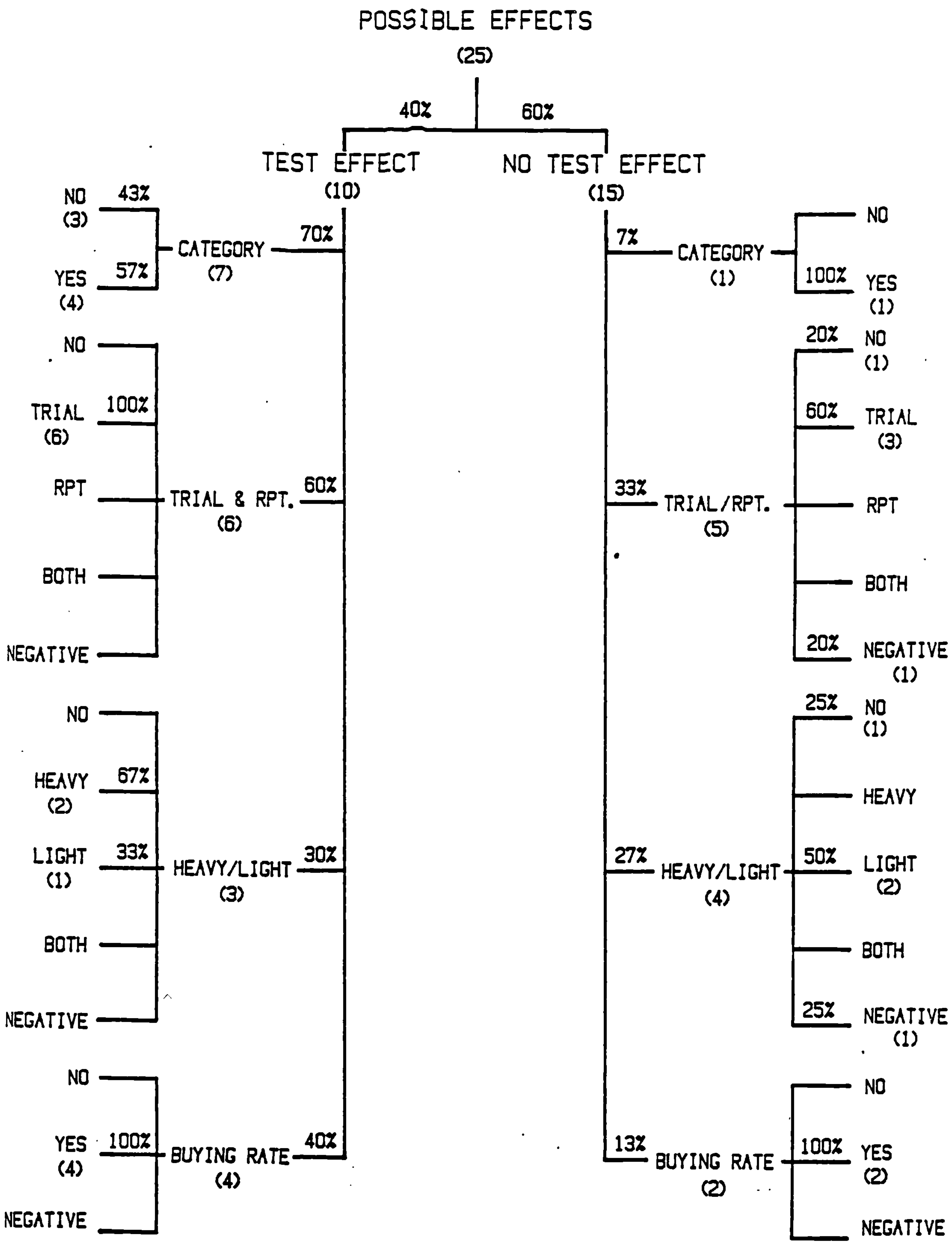
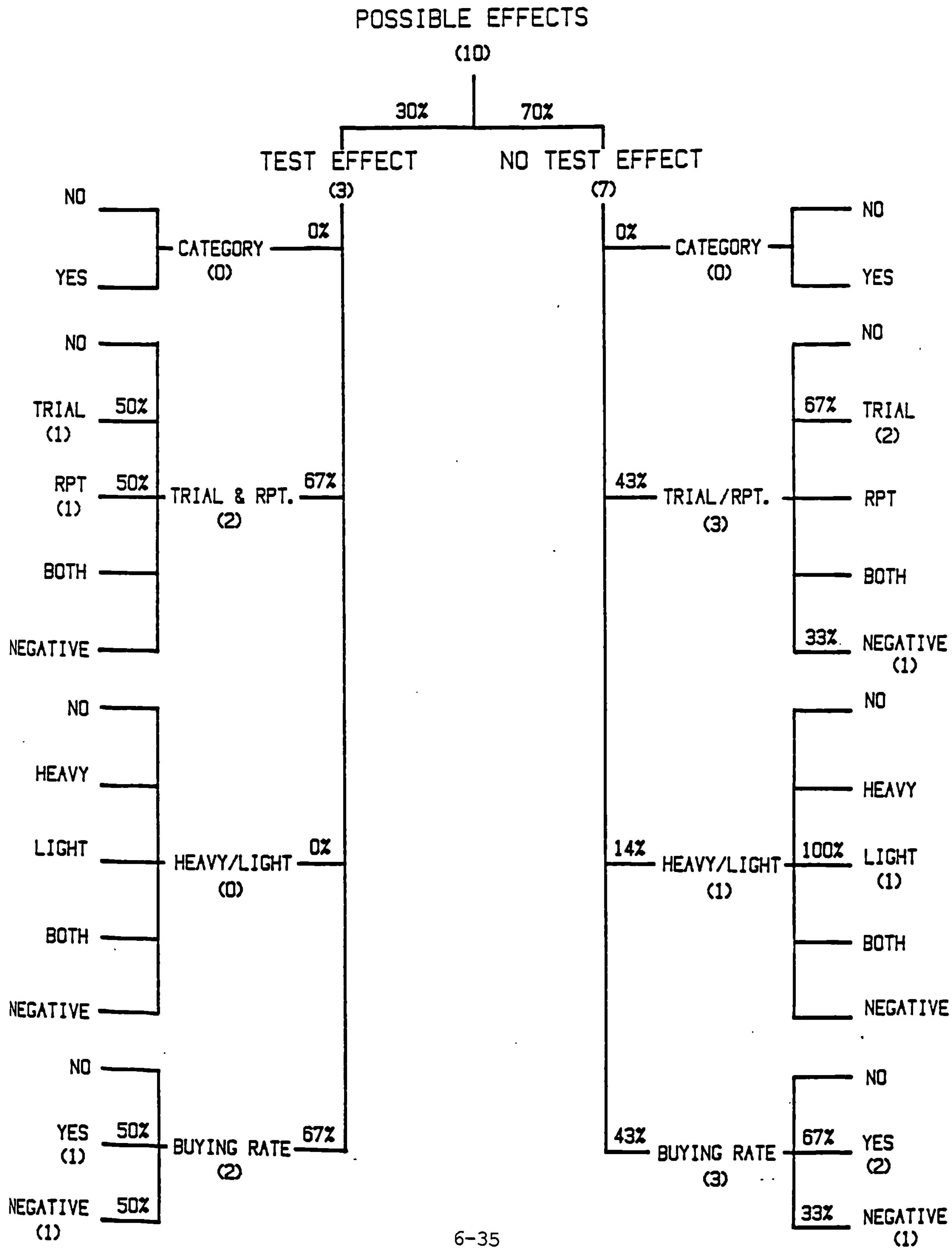


figure 6.3.

COPY ON ESTABLISHED BRANDS



Chapter 7

Implications of Research Findings Regarding Advertising Strategy for Established Brands and TMG's Testing Service.

This research has examined the relationship between advertising and sales, from both a methodological and an empirical point of view. In this chapter an attempt will be made to determine the implications of the findings of this research, first in regard to the degree to which they address key advertising strategy issues for established brands and, second, in regard to TMG's system. To the extent that these findings do not or only partially address key advertising strategy decision-making issues, further research will be proposed.

7.1. Implications of the Findings of This Research for Advertising Strategy.

7.1.1. A Strategic Framework.

According to Ansoff (1957), companies can pursue a growth objective through four strategies, which are graphically represented in figure 7.1. Since the tests analyzed in this dissertation were conducted by companies investigating growth possibilities for their established brands, the findings apply to only two of these growth strategies, market penetration and market development. These strategies, specifically in relation to obtaining profit improvement (Day, 1984), will be examined in order to establish a strategic framework.

Growth Strategies

		PRODUCTS	
		EXISTING	NEW
MARKETS	EXISTING	market penetration	product development
	NEW	market development	diversification

Source: Ansoff (1957).

figure 7.1.

Growth for existing products in existing markets, that is, market penetration, can be achieved through increases in market share, increases in product usage, or both. The former can be achieved by increasing advertising, trade allowances, promotions or price reductions. However, share gains by such means are fairly difficult to hold. A preferable approach may be to change copy in order to generate a "sustainable competitive advantage or to overcome or neutralize a competitor's sustainable competitive advantage" (Aaker, 1984). Whereas advertising weight increases usually attempt to hold or gain share by attracting consumers who are buying competitive brands, changes in copy strategy may emphasize brand differentiation, and thereby provide a more solid basis for holding or increasing share.

Increasing product usage, the second way to penetrate the market, is less threatening to competitors than attempts to increase market share. An increase in product usage can be obtained in three ways: increasing the frequency of usage, increasing the quantity used per occasion, or by finding new applications for current users. For instance, marketers of steaksauces conduct reminder advertising campaigns to obtain more frequent usage (Aaker, 1984), while Arm & Hammer baking soda saw sales go from $15.6 million in 1969 to about $150 million in 1981 "largely by finding new applications for its well-known brand" (Honomichl, 1982).

Market development, that is, marketing existing products to new markets, can be achieved in two ways. First, geographical expansion can be pursued, and, second, new target segments can be identified for the product. Since this research is based on tests for national brands only, a strategy of geographical expansion is not discussed further.

Growth by reaching new target segments can also be achieved through a variety of ways. For instance, the non-user can be attracted through tools such as advertising and promotion. Other means are to expand or change the distribution channel or to change the price of the brand. In the latter case, different price-quality segments are being targeted. Although relevant to strategic marketing, distribution and pricing strategies are also necessarily beyond the scope of this research.

The strategies discussed above focus on means by which performance can be increased through increases in sales volume.

However, as suggested by Day (1984), growth objectives can also be achieved by improving profitability. Profitability could be improved, for instance, through cost reductions such as a decrease in advertising spending, yield (price) increases, or reductions in investment intensity. As will be shown in section 7.1.2., the pursuit of a profitability objective is closely tied to market share and, hence, is of particular relevance to testing advertising strategy for both large and small brands.

Figure 7.2. summarizes the growth strategies relevant to strategic advertising decision making for established brands.

Growth Strategies Relevant to Advertising Strategy for Established Brands.

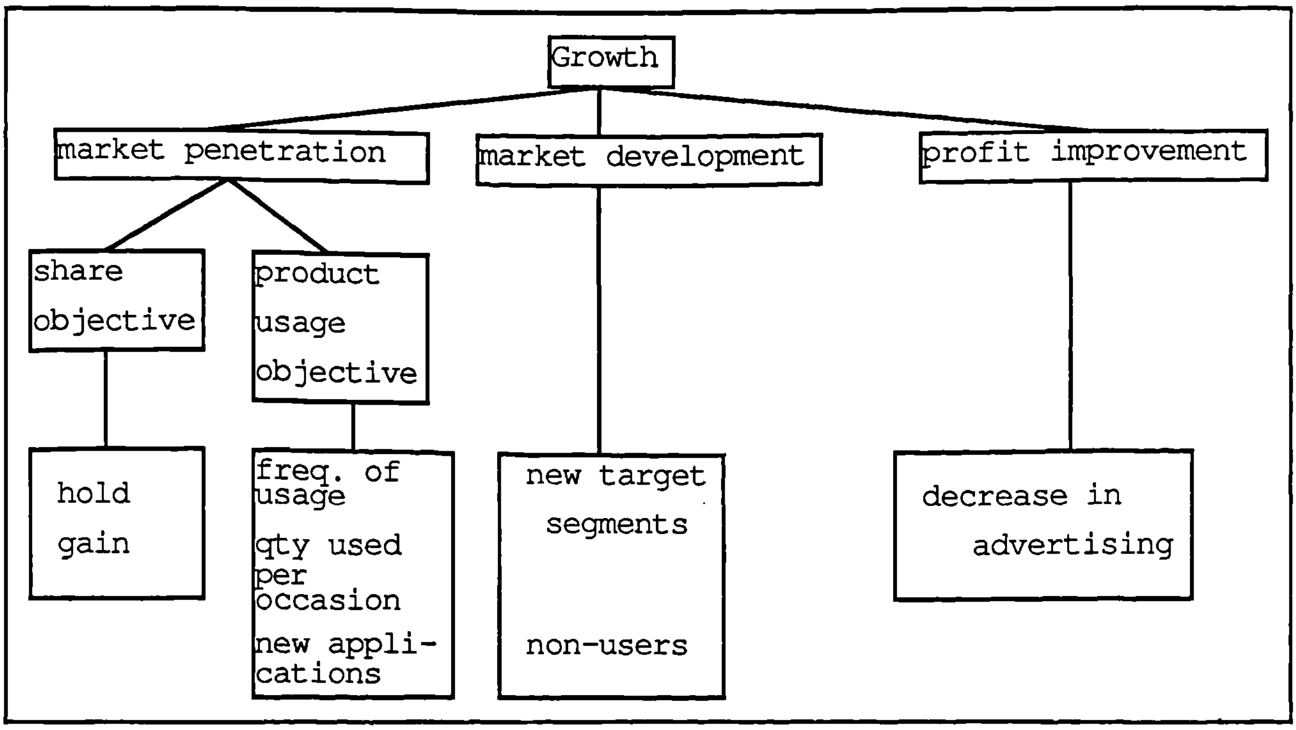


figure 7.2.

The focus of the remainder of this section is on the implications of the research findings for share strategy, product usage strategy (frequency of usage and quantity used per occasion), and new target segment strategy (which is discussed in more detail in section 7.1.4.) particularly as they relate to profitability.

7.1.2. Implications of the Findings of This Research for Share Strategies.

The appropriateness of a share strategy depends on a number of factors, such as the product's present market and cost position, the product's life cycle stage, the firm's resources relative to the competitors, its time horizon, its other products, and likely actions by competitors (Abell and Hammond, 1979). Since the product's cost position and the company's resources are almost always unknown to TMG, no attempt will be made to assess the implications of the research findings on these issues.

There are two objectives in share strategies that are relevant to this research: building share and holding share (Abell and Hammond, 1979). Strategies for decreasing share are not considered here since TMG clients seldom conduct advertising strategy tests in order to reduce share. The objective of building share is often pursued in an attempt to increase profitability. With respect to advertising, this means that the cost of increasing advertising weight or changing the copy strategy must be less than the increase in net contribution due to the gain in sales volume. Again, these are issues TMG rarely addresses since the information is often not shared by its clients; presumably, any gain in volume due to a change in advertising strategy is translated by these companies into profit estimates.

As was noted above, building share is sometimes an offensive strategy, since the company attempts to make consumers switch. Retaliatory actions by competitors can, therefore, be expected. Thus, it becomes important both to anticipate these retaliatory actions and to estimate their likely impact. Testing, as was indicated in chapter 2, allows the experimenter to examine these issues, although it is not always likely that competitors are aware of the test, or, if they are, that they will respond in the same manner as they would if the new advertising strategy were executed nationally.

A strategy of building share can also be defensive. This can be the case in industries where a minimum share is needed for long-run viability. In that case the company faces the choice to either attempt to obtain this minimum share level or to withdraw from the market (Abell and Hammond, 1979).

The appropriateness of share building strategies depends in part on the market growth rate. For instance, in slow growing or static markets, gaining share is difficult and often uneconomic (Aaker, 1984). In high growth markets, on the other hand, market dominance is appropriate as long as the company has the resources to pursue this objective.

Holding market share is particularly appropriate for brands with leading or strong shares (Bloom and Kotler, 1975). In fact, efforts aimed at holding share can be considered as "the cost of doing business". Thus, changing advertising for these brands does not have the objective of causing an effect, since no effect is, indeed, "good news".

Unfortunately, the nature of the data used in this research does not allow for insights into a number of key product-market characteristics. For instance, knowledge of clients' objectives, the intensity of the competitive environment, market growth rates, and the stage in the product life cycle are not known. What are known, and relevant to this discussion, are the market shares for the test brands and the outcomes of the advertising strategy tests.

The results of this research confirm that for brands with relatively large shares (50% and higher), changes in advertising strategy, with the objective to hold market share, caused no effects. Or, said differently, the effect was that market shares were held. For brands with a relatively small share (averaging around 23%, see table 5.15.), significantly more effects were identified (53%, or 8 out of 15 tests; see table 5.16.). Since these smaller share brands probably were aiming at share increases, the results suggest that changes in advertising strategy may be a viable means of doing so. In addition, it should be recalled (see table 5.10.) that the magnitude of the increases caused by increases in advertising weight were substantial (averaging around 15%), which, therefore, may suggest that the pay-off of these changes can be significant for smaller share brands. Thus, if smaller share brands implement an increase in advertising spending, the probability of observing an effect is high and the magnitude of the effect is likely to be relatively large. This is particularly likely to occur if the test brand is in the early stage of its life cycle.

As was observed in chapter 5, copy changes showed a significantly higher probability of causing a negative effect than did weight changes. Also, copy tests were conducted primarily for brands with smaller shares, whilst weight tests were conducted for brands with larger shares (see table 5.5.), which may suggest that companies attempted to obtain share increases by means of changing their brands' position, hoping thereby to establish a competitive advantage vis-a-vis the market leader. Since all copy changes caused a negative effect, it may be concluded that, for small share brands, it is hard to obtain a share increase by changing the copy strategy. Interestingly, as was discussed in section 7.1.1., Aaker (1984) suggested that smaller share brands should attempt to "generate a sustainable competitive advantage". Although his recommendation may still be preferable, this research suggests that considerable risk is associated with this strategy. Yet copy changes may still be the more appropriate strategy for small brands, since alternatives such as increasing advertising weight or promotions may not be feasible, depending upon the resources of the company and the likely high level of promotional activity of the market leader. Moreover, as was shown in chapter 5, section 5.1.6., small brands without any previous advertising spending may benefit substantially from advertising. It therefore may appear that copy changes in the advertising, or adding advertising expenditure to the promotion mix for small share brands, are, indeed, likely to be successful strategies. However, testing this on a limited scale before national execution may be essential in order to avoid the risk that seems inherent in changing copy.

In this database, weight increases for large share brands showed a zero probability of causing an effect. Generally, though, as was suggested above, companies tend to increase advertising weight to maintain share. However, since so few weight tests showed an effect, testing the risk associated with a decrease in weight may be a viable alternative. This is supported by Aaker and Carman (1982), who, in their review of advertising weight tests (see chapter 2, section 2.3.3.) reported that ten of the eleven weight reduction tests they included in their study resulted in reduced spending levels. Thus, although increases in advertising spending levels for large share brands generally is recognized as an appropriate strategy (Day, 1984), companies should investigate the possible effect of decreases in advertising spending levels. Moreover, this may result in longer tests, since the decay of advertising often takes longer to observe (Little, 1979). Since tests for weight increases last on the average aproximately ten months, these tests may now have to run for eighteen to twenty-four months.

The implications of the research findings discussed above can be compared to the published results of the PIMS (Profit Impact of Market Strategies) project (Buzzell, Gale and Sultan, 1974 and 1975). The authors found that for the fifty-seven U.S. companies that provided financial and other information on six hundred and twenty individual "businesses" for the three-year period 1970-1972, profitability was closely related to market share. Given this finding, it may not be surprising that many companies pursue an objective of market share gains. Yet, they observed significantly different strategies between companies with large share brands and those with small share brands. For instance, market leaders, defined by the authors as businesses with shares above 40%, tended to market higher price-quality products than did businesses with small shares (under 40%). These large share businesses were also enjoying economies of scale, which, in part, were due to the more efficient use of mass advertising media. Given the "powerful" market position of these companies, the authors found that large share companies pursued market share strategies by using their strengths. The results of this research, however, suggest that these companies should investigate the possibility of increasing profitability not by adding to their promotion mix, but rather, by decreasing it, once they have reached a position of market dominance. This strategy may be particularly relevant since the authors also found that attempts to build share for already large share brands rarely resulted in large increases, a finding confirmed in this research, and almost always caused decreases in profitability. In short, the question that large share businesses need to answer is: "What is the most profitable way of maintaining market position?" (Buzzell, Gale and Sultan, 1974 and 1975). Given the likely difficulty in obtaining significant increases in share in the short term, and the resulting negative effect on profitability, a decrease in advertising weight may be an appropriate strategic answer to this question.

The analysis of the PIMS data suggested that the cost of increasing share for small share companies affected ROI even more. It appeared that a substantial amount of marketing effort was needed for market share gains for small share brands. Thus, as far as advertising strategy is concerned, the authors agreed with Aaker's (1984) observation that changes in copy, as opposed to increasing advertising weight, may be the most viable advertising strategy. Yet, as was suggested above, the risk involved in doing so makes testing almost a necessity. For small share companies, the preference for current versus future profits would ultimately determine their strategy for pursuing market share. This research found that these brands have a significantly higher probability of obtaining share increases, but, according to Buzzell, Gale and Sultan (1974 and 1975), larger decreases in profitability can be expected.

So, in conclusion, small share brands face a dilemma in choosing between increasing their advertising effort or changing their copy strategy. The former, although likely to cause an increase in share, almost certainly reduces profitability, whereas the latter carries a significant risk of decreasing share. Testing copy strategies, therefore, may be preferable to increases in advertising spending; the company should experiment with various copy approaches until a clear "winner" has been identified. Moreover, it may be recalled from the Introduction that during the last five years TMG has experienced a significant increase in the number of copy tests, with an accompanying decrease in weight tests, possibly suggesting that companies have recognized the potential as well as the necessity of testing these copy strategies before implementing them nationally.

Table 7.1. summarizes the findings and the recommendations.

Advertising Strategy and Market Share Objectives

BRAND	ADV. CHANGE EFFECT BY MARKET SHARE OBJECTIVE		IMPACT ON VOLUME AND PROFITABILITY	RECOMMENDATION
	HOLD	GAIN		
large share (≥50%)	no effect (copy or weight)	no effect	decrease in profitability	test weight decrease (longer tests: 18–24 months)
small share (≈23%)		weight: 53% prob. of effect	≈15% incr.in vol decr. in profit.	long term profit.: add adv. or weight to promo. mix.
		copy: all neg.	≈7% decr. in vol decr. in profit.	short term profit: test for winning copy

table 7.1.

7.1.3. Implication of the Findings of This Research for Product Usage Strategies (Frequency of Usage and Quantity Used per Occasion).

As was noted in section 7.1.1., product usage strategies are often less threatening to competitors since the objective is not to persuade consumers to switch but to increase the amount bought or the frequency of usage per occasion of a particular brand, or to suggest new applications.

As far as advertising is concerned, product usage strategies can also be pursued by changes in copy strategy or increases in weight. A "typical" approach of the former strategy, of which an example was given in section 7.1.1., would be to suggest new ways to use the product. A different copy approach can also be used to persuade consumers to use the brand more frequently. For instance, current national television advertising for General Foods' Jell-O brand suggests that one could use it more often and not just occasionally at dinner.

Based on TMG's experience, a weight increase strategy is most often used to stimulate the amount and frequency of usage, whereas copy strategies are often used to disseminate information about new applications of an existing brand. This can be supported by the fact that weight tests were conducted for brands that had approximately 50% longer purchase cycles than had those brands for which copy tests were conducted (see table 5.3.). Advertising, therefore, can attempt to shorten these purchase cycles by reminding consumers to consume the brand more often and, thereby, to buy more frequently. It is unlikely that this can be achieved for brands with short purchase cycles; hence, the strategy of finding other applications for these brands.

The results of the analysis at the disaggregate level (see chapter 6, section 6.2.3.) suggest that strategies aimed at increasing repeat (frequency of repurchase) are rarely successful. Although the sample sizes are small, none of the tested weight changes and only one of the copy changes (negatively) affected repeat. It appears that both advertising strategies are unsuccessful in increasing repeat levels. However, when weight changes are successful, they tend to affect heavy category buyers, that is, the consumers who are already convinced of buying the brand and are, therefore, more easily convinced to buy more of it, or more often (see table 6.7.).

Buying rate, or the amount bought, on the other hand, was almost always affected (see table 6.6.). Weight changes were particularly successful, and copy tests were significantly less successful. This may support the argument made above, that changes in copy strategy should not be used to increase the amount bought. In fact, since all copy tests showed an overall negative effect, copy changes run a significant risk of decreasing the amount bought. It appeared that light buyers were particularly affected by this strategy (see table 6.7.).

Table 7.2. summarizes the implications for advertising strategies directed toward product usage objectives.

Advertising Strategy and Product Usage Objectives

PRODUCT USAGE OBJECTIVE	ADVERTISING STRATEGY	EFFECT	RECOMMENDATION
Repeat (frequency of usage) (incl. new applications)	copy	not effective	do not pursue
	weight	effect. on heavy. buyers	only pursue if heavy buyers are large part of business
Buying Rate (quantity used)	copy	60% prob. of success, but risk of neg'y affecting light buyers	test for "winning" copy
	weight	high prob. of success (decr. in purch.cycle)	add weight; copy should emphasize usage situations

table 7.2.

7.1.4. Implications of the Findings of This Research for New Target Market Strategies.

Market development involves a strategy of targeting an existing product to a new market. Often this strategy calls for a "virtual duplication of a business operation, perhaps with minor adaptive change" (Aaker, 1984). Expanding into new market segments, as opposed to geographical expansion, can be obtained in a variety of ways. As was indicated in section 7.1.1., changes in the distribution channel or price are beyond the scope of this research; however, the third alternative, targeting non-users of the brand, is of particular relevance to this dissertation.

Table 5.11. showed that the average cumulative penetration rate for all brands in this database was around 15.7%. Although these penetration rates were calculated for only ten periods, it is unlikely that they would have exceeded 25-30% at the end of two years, given the diminishing slope of the penetration curves. This suggests that approximately 70-75% of the panel households did not purchase the brands at least once during the pretest and test period. Although it is not likely that all panel households were in the target markets for all the brands, it may be assumed that room for expansion existed, hence the interest in the non-user as a viable target for growth.

According to Day (1984), a strategy of converting non-users is particularly appropriate for brands that are in the early stages of the life cycle. Unfortunately, it is impossible to infer from the data in this database what stages of the product life cycle the brands are in. Nevertheless, this strategy may be more appropriate for small share brands, as long as they are in the early stage of their life cycles.

As can be recalled from chapter 6, weight increases were particularly effective in increasing penetration, which measures the effect on non-users. In fact (see table 6.2.), 82%, or nine out of the eleven weight tests that were analyzed for an effect on penetration, showed a positive one. Three out of five, or 60%, of the copy tests showed a positive effect on penetration. One weight test and one copy test showed a negative effect on penetration. Although four of the weight tests and three of the copy tests showed no significant volume increase at the aggregate level, effects at the disaggregate level were identified. This would suggest that changes in both weight and copy were able to persuade the non-user to try the brand; however, in a large number of the cases, this did not lead to significant increases that could be observed at the aggregate level. In other words, the change was not large enough and could only be detected amongst triers of the brands.

In summary, 100% of the weight tests and 60% of the copy tests that were analyzed for an effect on penetration showed one. This may suggest that large share brands for which mostly weight tests were conducted, were successful in reaching the non-user, presumably by advertising more during additional times. Copy tests, primarily conducted for smaller share brands, were also successful in attracting non-users, but the negative effect on the existing franchise was always significantly larger than the gain in volume from non-users.

Given the results shown in table 6.7., it is likely that the heavy users of small brands were not negatively affected by changes in copy, but that the major negative effect came from the light buyers of these small brands. In addition to the effect on non-users, as was shown above as well as in table 6.7., heavy buyers were positively affected by weight increases. Weight increases, therefore, seemed to be effective in reaching both the heavy buyers and non-buyers.

Table 7.3. summarizes the implications for advertising strategy directed toward the non-user.

Advertising Strategy and the Non-User Objective

OBJECTIVE	ADVERTISING STRATEGY	RESULT	RECOMMENDATION
non-user	weight	82% prob. of effect. Small effect on total volume.	Effective only if large increase in penetration can be obtained and if new users can be converted to loyal buyers.
	copy	60% prob. of effect. Small effect on total volume. Effect on light buyers.	Effective only if large increase in penetration can be obtained and if light users are not affected. Test for "winning" copy.

table 7.3.

7.1.5. Recommendations Regarding Advertising Strategy for Established Brands.

This research is believed to contribute to the advertising strategy decision making process in the following ways.

First, a methodology has been evaluated that has been commonly used by TMG for analyzing advertising strategy tests. Subsequently, this evaluation has led to the development of the individual household methodology, which not only provides the analyst with an improved, statistically based and tested method of observing an advertising effect, but also can be used as a "standardized" approach, thus reducing analysis time and cost.

Secondly, in spite of the limited number of observations and the lack of insight into certain key marketing variables, it is believed that these generalizations also provide guidelines for advertising strategy on established brands. A change in either the copy strategy or the level of advertising weight seems to be appropriate only under certain market and brand conditions, and is likely to make only limited sense under other conditions.

Thirdly, by "standardizing" the analysis approach, test results have been compared and generalized, thereby providing TMG with direction for further system development that could lead to improved experimentation on advertising strategy.

Table 7.4. summarizes the findings and recommendations with

respect to the choice of either weight or copy strategies.

Summary of Recommendations for Advertising Strategy

OBJECTIVE	RECOMMENDATION
hold/gain share	Test weight decrease for large share brands (tests should last longer).
build share (for small brands)	If long term profitability objective: test advertising or weight increases. If short term profitability objective: test copy until "winner" has been identified.
increase frequency of use	Changes in copy strategy not effective. Changes in weight effective if heavy users represent large share of franchise.
increase quantity used	Add weight. Test copy until "winner" has been identified.
convert non-users	Both weight and copy effective, but change in volume not substantial. For copy tests: risk of turning off light users. New users need to become loyal users.

table 7.4.

With respect to the usefulness of this research for TMG, two areas for further research are proposed that represent an extension of the research presented in this dissertation: advertising strategy issues, and further system development. (The latter will be discussed in section 7.2.)

With respect to the expansion of this research, it is recommended that TMG gather information on an ongoing basis regarding a number of key market/product characteristics. Specifically, information on and estimates of the stages of the brand's life cycle, market growth rates, and the competitive environment, which are relatively easy to obtain from the behavioral data that are being gathered by TMG, can significantly improve advertising strategy decision making. These additional data will, by validating and expanding this research, allow TMG analysts to add valuable dimensions to the interpretation of the test results and will ultimately lead to improved understanding by clients of the dynamics underlying the advertising-sales relationship. For instance, weight increases can be more effective in fast growing markets, thereby allowing the advertiser to obtain a disproportionately larger share. Copy tests, on the other hand, may be particularly effective for brands that are in the growth phase of their life cycle, as was argued above, and even more so in slowly growing markets.

Furthermore, evidence has been presented of the need to test the effect of advertising weight decreases. Although it is likely that this strategy may find resistance among clients as well as advertising agencies, a number of publications, in addition to the findings of this research, have suggested its usefulness. TMG, as was suggested above, could market this service to prospective (large brand share) clients by offering longer test periods for a reduced price.

7.2. Implications of the Research Findings for TMG's System Design.

By applying a new methodology to measure the effect of changes in advertising strategy on sales, this research has focussed on two key issues, namely the accurate measurement of the effect itself, and the need to be able to generalize the findings of advertising strategy tests. In doing so, it has not addressed a number of other issues that are important from an advertising strategy point of view. Although it was argued that the findings are generalizable, and thus useful for deciding on the advertising strategy for established brands, a number of issues remain to be addressed.

As can be recalled from chapter 2, the use of an experimental system ideally allows the experimenter to address the following questions (Robertson, 1971):

1.- What is the effect of additional or reduced airtime expenditure on sales volume?
2.- What is the effect on sales volume of such factors as different schedules, frequencies of exposure, time of day, lengths of commercial, or different creative copy treatments?
3.- What is the optimum level of advertising expenditure on TV for a given brand?
4.- What is the optimum scheduling mix?
5.- What happens to sales when TV and other media are combined and what media mix optimizes profit?

Thus far, this research has addressed parts of points 1 and 2. Limitations of TMG's present system do not offer clients the capability to investigate the remaining issues.

As far as system improvements are concerned, it was proposed on the basis of this research that TMG should implement a number of key system changes that would allow it to offer greater specificity in advertising. For instance, more accurate estimates needed to be obtained of the Reach and Frequency on individual members of panel households, while other data, such as coupon or in-store promotion data, could potentially improve the analysis of the effect of advertising. With respect to Reach and Frequency, TMG should investigate the possibility of introducing a data collection system, such as the one proposed by McDonald (1970), that could improve the insight into the advertising-sales relationship. This system would generate even further disaggregate data, and thus seemed a logical extension of this research.

In order to do this, individual exposure data had to be obtained, which would allow for an improved specificity as to what member(s) of the panel households actually had seen the test brand's and its competitors' advertising.

To obtain this level of specificity, it was proposed that technology needed to be introduced that would allow the panel to be divided into more than two groups. Hence, more than one alternative media or copy strategy could be tested at the same time (point 2), provided, of course, that enough observations could be obtained. It was conceivable that this might lead to an even more precise estimate of the advertising effect since then effective exposure levels could be determined rather than inferred ones. Given that then the experimenter could obtain more than two datapoints on the advertising response curve, an optimal level of advertising expenditure could be determined (point 3).

In addition, competitive advertising data needed to be gathered. For instance, it has been assumed throughout this dissertation, that a 100% increase in advertising weight does indeed "translate" into an equal increase in the test brand's share of category advertising. However, this does not need to be the case. Data on the level of competitive advertising would allow for a more precise measurement of the relative advertising weight of the test brand.

Finally, by asking the panel households to report on their exposure to other media, point 5, the issue of the effectiveness of the entire media mix could be addressed.

TMG conducted this suggested research, the results of which are presented in Appendix I.

Appendix I

Further Research:
Results and Implications.

As discussed in chapter 7, section 7.2., it was proposed on the basis of this research that TMG develop and test a data collection system that would improve specificity in measuring the relationship between advertising and sales. By defining advertising targets more effectively, key advertising strategy issues for established brands could be investigated that no current testing system addresses conclusively.

The purpose of this chapter is to report the results of the research subsequently conducted and to explore its implications for TMG's system. First a brief review will be made of published studies on single source data, and a framework presented for evaluating media that demonstrates the advantages of these data (A.1.). There follow a report on the experimental single source data base (A.2.); an examination of the potential applications for the data and a proposed framework for analyzing them (A.3.); a discussion of McDonald's (1970) analysis approach, which served as a partial guide for TMG (A.4.); a presentation of the initial results of the analysis and their implications for TMG's system design (A.5.); and conclusions (A.6.).

A.1. Definition and Review.

Single source data means any type of demographic, psychographic, purchase behavioral or media habitual data obtained from a single household over time. This type of data is not new to marketing. For instance, in 1960, The Saturday Evening Post (1960) sponsored a study investigating the strength of single source data, and Politz (1964) researched the same area in a study sponsored by

McCall's Magazine. In 1970, McDonald published his landmark paper outlining the benefits of single source data by showing that they could aid managers in making better media decisions. In 1974, AdTel conducted an effective frequency study using a type of single source data (Naples, 1979 and 1982).

Following a lack of attention during the period of 1974-1980, a number of U.S. and European research organizations have recently given single source data increased attention. For instance, the Advertising Research Foundation (ARF) held two special conferences on the issue of single source data, one in 1982 that focussed on "Effective Frequency" and one in 1983 that looked at "Intermedia Comparisons". During both conferences, representatives of three major U.S. research suppliers, A.C. Nielsen, I.R.I./BehaviorScan, and TMG, reported on their investigations into the usefulness of single source data. Others such as McDonald (1982) and Krugman (1982) reported on their continued research in the area of effective frequency, which was based on their earlier work (McDonald, 1970; Krugman, 1972). In addition, Eskin (1985) and Naples (1986) reviewed the benefits of single source data, and, finally, in a recent issue of Marketing News (March 14, 1986, page 9) AGB Television Research, Inc., reported on the results of its test of a single source system in Boston.

In 1983, in the U.S.A., the ARF published a model for evaluating media (Chook, 1983). This model (see table A.1.) may provide a strategic basis for demonstrating the power of single source data and may guide developmental and evaluative efforts.

A Model for Evaluating Media

Stage	**Description**	**What**	**"Original" Source for Info**	**Single Source Data**
Stage 1	Vehicle Distribution	number of sets tuned to a program	medium	√
Stage 2	Vehicle Exposure	number of people *potentially* reached by program	Nielsen/ diary	√
Stage 3	Advertising Exposure	number of people *potentially* reached by advertisement	medium	√
Stage 4	Advertising Perception	number of people *actually* reached by advertisement	?	√
Stage 5	Advertising Communication	changes in awareness and attitudes	ad hoc	ad hoc
Stage 6	Sales Response	$'s/units/shares	Nielsen/SAMI MRCA/TMG/etc.	√

Source: adapted from Chook (1983)

table A.1.

The model suggests that evaluation of a given media plan should undergo a six-stage process. Although this model can be applied to every medium in the overall media plan, television will be used here as the example. The first stage, called "Vehicle Distribution", simply counts the number of sets tuned to a given program. "Vehicle Exposure", the second stage, counts the number of people who are potentially reached by a given program, while "Advertising Exposure", stage three, counts the number of people who are potentially reached by the advertising.

In the U.S.A., vehicle exposure data are obtained from companies such as A.C. Nielsen, which uses approximately 1700 households who fill out a diary on their viewing behavior. "Advertising Exposure", then, becomes an inferred and estimated number. The fourth stage, "Advertising Perception", defined by the ARF as the number of people who actually saw the advertisement, can be obtained from a variety of different sources. "Advertising Communication", the fifth stage in the model, measures the changes in awareness and attitudes due to the advertisement and can only be determined by ad hoc research. The final stage, "Sales Response", then measures the effect of the exposure on the number of units or dollars sold by using sources such as retail data or the purchase data kept by panelists.

Looking at the published research to date in all six stages, one may conclude that most research has been done on the second and sixth stages (Vehicle Exposure and Sales Response). An impressive number of approaches have been generated by the media and researchers alike on the measurement of their reader or viewer audiences (see, for instance, Sissors and Surmanek, 1982, chapter 2), and the academic community has proposed a vast number of methodological approaches to modeling sales response functions (see chapter 2 for a review of the published Sales Response methodologies). To date, though, as was also argued in chapter 2, the available data sources, as well as the information that has been extracted from them, have not necessarily been integrated effectively into the total advertising decision process. The use of single source data promises to redress this by offering the capability to obtain data for the first four and the last stages of the ARF model from a single household over time (see table A.1.). Whereas formerly aggregate data had to come from either the medium or special ad hoc research, now single source data can provide the "raw material" on an ongoing basis at a level of disaggregation that, in chapter 5, was argued to be most desirable for modeling the advertising-sales relationship.

The original and current promise of single source data has been to define advertising targets effectively. Advertising targets are groups who are judged most susceptible to brand advertising. As was argued above, single source data may offer the possibility of describing these groups in terms of demographics, media habits, and purchasing behavior. Hence, single source data may guide the advertiser in reaching these groups more efficiently since now they can be defined directly in terms of product or brand usage without intervening demographic assumptions. Differential effective frequency for the groups can potentially be determined.

To illustrate this, a review follows of a study that was conducted in 1974 by TMG (then known as AdTel), which was the last published research in the U.S.A. on the issue of effective frequency. In this study, twenty-eight weeks of diary-based purchasing data for five brands, each in a different category, were obtained. Also, three intervals of two-week viewing data were gathered and by using the national advertisers' advertising schedule, probable (and not actual) exposures to a brand's and its competitors' advertising were estimated. Using a stepwise regression procedure, controlling for a number of different conditions (such as use/non-use and cable), the following major conclusions were drawn (Naples, 1979):

1.- Different probabilities of buying were associated with different exposure levels.

2.- User households were more responsive to additional exposures than were non-users.

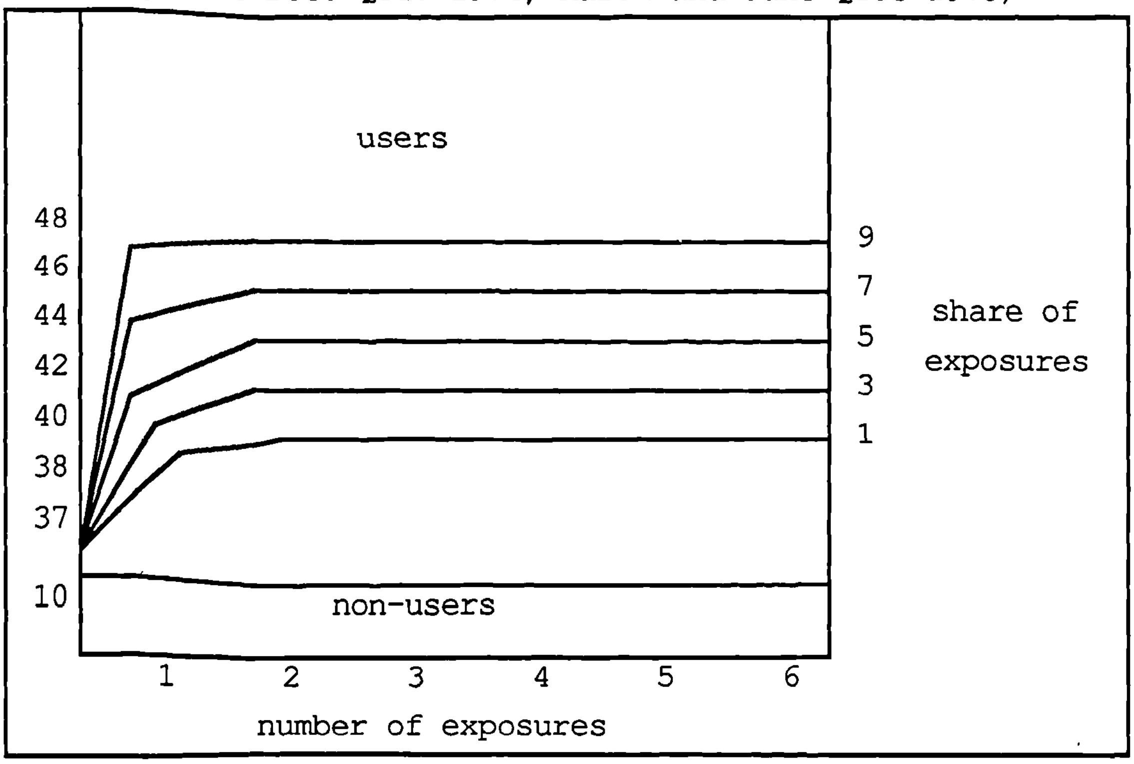
3.- The largest values for additional exposures were noted for brands with the largest share of advertising in their categories.

4.- Brands with longer purchase cycles were likely to benefit most from higher frequencies of exposure.

An example of response curves to increased levels of exposure for both users as well as non-users of Brand E is given in figure A.1.

Brand E: Probability of Purchase During Average 4-week Period.

(average for Dec. Qrt. 1974, March and June Qrts 1975)



Source: Naples (1979).

figure A.1.

In spite of the knowledge derived from this study, it should be noted that it had some specific limitations. First, it was done only for t.v. in one city. Second, the method of analysis included a number of functional forms that attempted to measure the response to exposure or share of exposure, but did not include an S-shaped curve. Its major drawback may have been the misspecification of the direction of causality: Reverse causality could have resulted from correct targeting of exposures to heavy users. Finally, the exposure data were, as in most other studies at that time, inferred: They were projected to the entire test period based on three intervals of two-week media behavior data.

A.2. The Single Source Database.

One of the objectives in designing a new single source database has been frequency research. The previously mentioned studies do not provide the specificity of single source data required for frequency research (see table A.2.). For example:

Frequency Research Studies

McDonald (British Market Research Bureau, 1970).
(The "original" frequency study on single source data.)

DATA: Daily diary, 255 households, 13 weeks.
Issues seen out of 32 magazines and newspapers and tv commercials.
Recorded purchases in 50 product categories.

SINGLE SOURCE SPECIFICATION:
Opportunity To See (OTS), and purchase data of the same household over time.

LIMITATIONS:
No merchandising data.
Limited number of respondents, time periods.

Syndicated Media Services (1968-current).
(Services such as: Mediamark Research Inc., Simmons Market Research Bureau, Target Group Index.)

DATA: Personal interview and/or booklet questionnaires once or twice a year.
Respondents estimate reading (magazines and newspaper) and radio and t.v. exposure.

SINGLE SOURCE SPECIFICATION:
Estimated media exposure and product usage of the same household at one point in time.

LIMITATIONS:
Loss of specificity of exposures and purchases in time.
Ascription of information.
Respondent overloading.

For a more in-depth review of single source databases in the U.S.A., see Moult (1982, unpublished D.B.A. dissertation).

TMG (AdTel) (1974).
(Most recently published single source frequency study in the U.S.A.; Naples, 1979.)

DATA: Three intervals of two-week viewing data and 28 weeks of diary-based purchasing data.
'National advertisers' advertising schedule.

SINGLE SOURCE SPECIFICATION:
Probability of exposure and purchases of same household over time.

LIMITATIONS:
Probability of exposure.
Analysis.
One city, only t.v.

table A.2.

The experimental system that was proposed to investigate the usefulness of single source data for advertising research is based on technology that improves specificity. Because a significant amount of capital investment was needed to implement the new single source technology, approximately one hundred and fifty households in Charleston, West Virginia, an original diary city of TMG, were selected on the basis of their reporting consistency and longevity within TMG's panel. In the homes of these panelists, meters were installed that recorded what channel the tv was tuned to every five seconds of the day when it was turned on. Also, every hour that the t.v. set was turned on, a green light went on automatically to prompt those who were watching to enter a code, so that it was known exactly who was watching. The use of this "People Meter" is the distinctive feature of this system that provides the level of specificity needed for this research and that had been previously unavailable in other single source systems in the U.S.A.

The data collection unit (DCU), which was connected to and set on top of each t.v. in the household, was dialed up automatically by a computer sometime after midnight and transmitted all of the stored information to TMG's data center. A central monitoring facility recorded the exact time of each commercial sent to their t.v. sets. These households also filled out a daily diary of their purchases, and, in addition, the retail environment was being tracked on an ongoing basis in order to ascertain the level of dealing and promotion in those stores most frequently shopped by the panelists. After integrating these data sets at the end of a reporting period, an analysis was done. Figure A.2. graphically represents the system design and the dataflow.

TMG's Single Source System

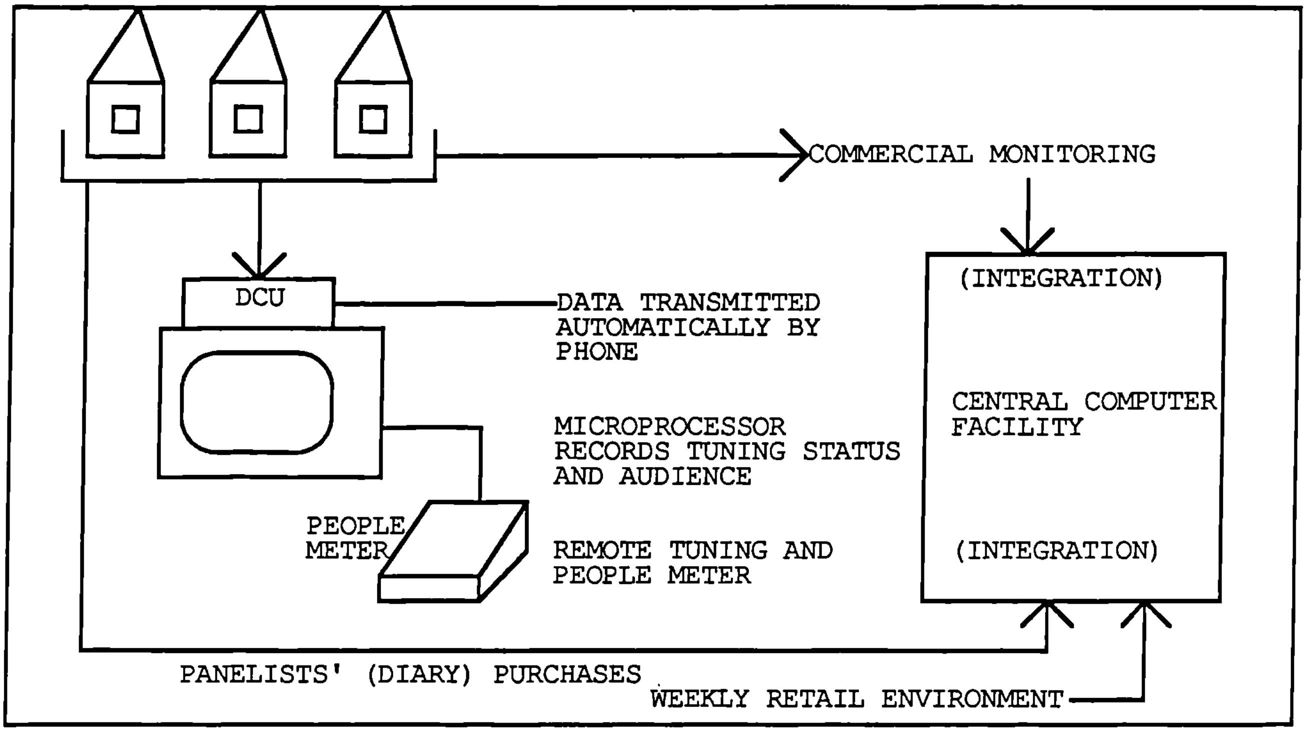


figure A.2.

So, in summary, the following data sets were available:

1.- Daily purchase data.
2.- Monitoring of t.v. commercials.
3.- Daily t.v. set tuning data.
4.- Daily people viewing data.
(5.- Weekly in-store promotion data.)

For this research, however, only the purchase data, the monitoring of t.v. commercials and set tuning data, and the viewing data were analyzed. The integration of the in-store promotion data was not accomplished because of the complexity involved. In addition, coupon redemption data were gathered and are part of this analysis. ("Weekly in-store promotion data" is shown in parentheses to indicate that this dataset was not part of the analysis reported in this Appendix.)

The degree of specificity can be shown by an example of viewing and commercial monitoring detail that defines the potential exposures of one household during one day (see figure A.3.).

Defining Potential Exposure
One Household, One Day

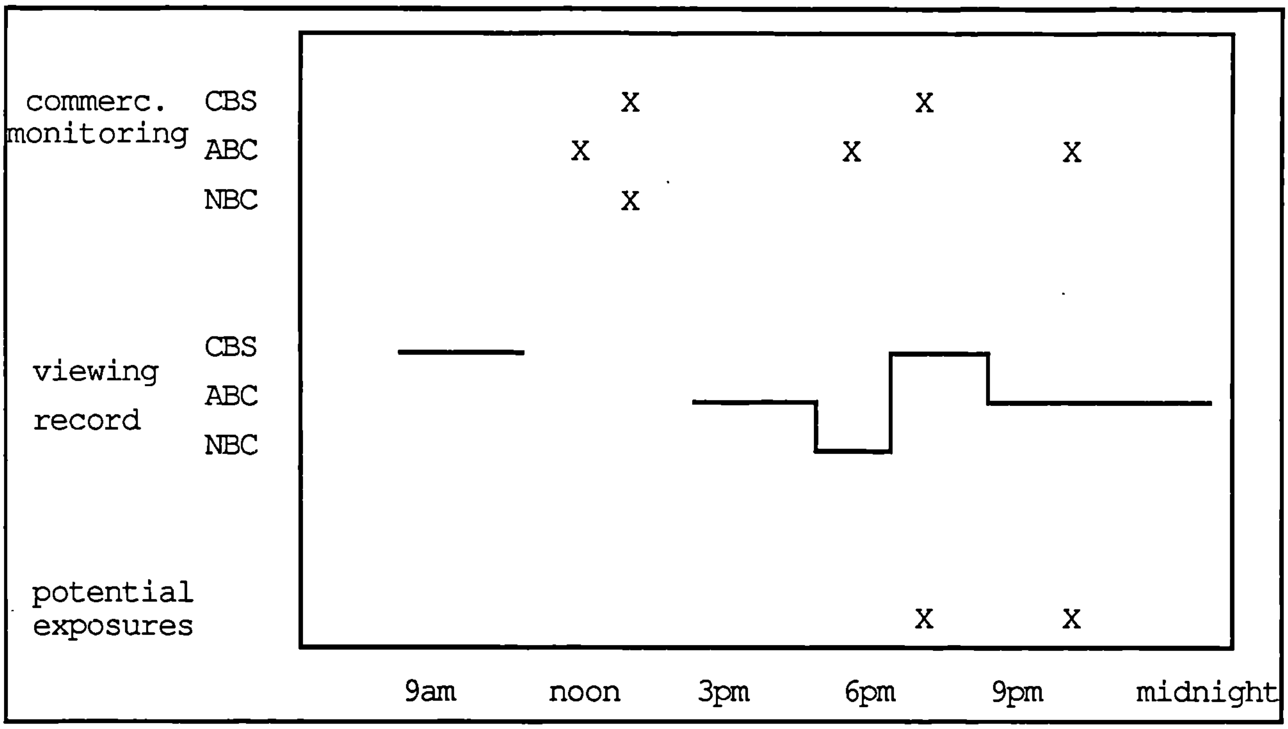


figure A.3.

The increase in specificity and accuracy may make the task of modeling these data easier. For instance, the People Meter will reduce the uncertainty of who (if anyone) is watching (stage three of the ARF model), as figure A.4. indicates.

"Potential Exposure"
("OTS" - McDonald, 1970)

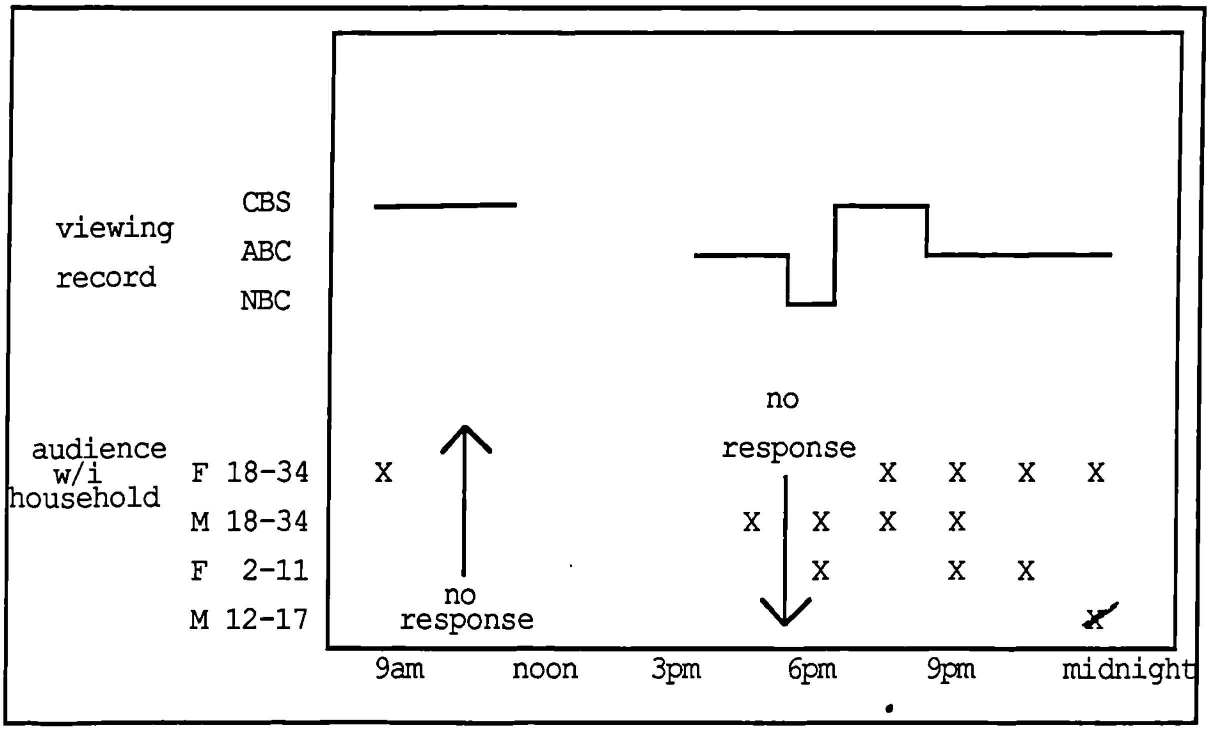


figure A.4.

It may become apparent that a number of key decisions are being faced relating to the information obtained from the People Meter. For example, does no response to the green light prompt mean that no one was watching or non-compliance? Does a response mean that all codes for everyone who was watching were entered, and that panelists recorded these codes accurately? Clearly, a number of safety checks needed to be built into the equipment that could increase the accuracy of the data. These hypotheses are presently being defined and tested and the impact of different assumptions on the actual data, although not part of this research, can then be measured.

A.3. Applications and Analysis.

What remains to be addressed at this point is what single source data can be used for, and how the data can be modeled in such a way that full advantage can be taken of the increased precision, and, more specifically, how it can address the key advertising strategy issues that were raised in chapter 7, section 7.2.

There are two general areas in which this type of data can be utilized: ratings and frequency research. T.V. audience ratings are probably the more controversial issue since present methods are well established. In the U.S.A., as was discussed in section A.1., such information is collected through diaries, and most, if not all, broadcasting companies base their advertising prices on data from this long-used and well-established source. The issue of ratings is not part of this research and will, therefore, not be discussed further. However, a need exists to check the validity of this technology to replicate the diary-based viewing data. It was found that the data that have been collected to date through the use of the new technology resembled the diary-based data very closely. Table A.3. shows the comparison between meter- and diary-collected data from Charleston, West Virginia.

Ratings: Meter vs. Diary Comparison.
(rating = % HH's tuned to particular station.
HUT = % HH's using TV.)

8 - 11 PM Prime Time Ratings

Station	**Meter**	**Diary***
CBS	18%	19%
ABC	11	10
Public	1	1
NBC	14	13
Independent	3	2
HUT	74%	58%

* Source: A.C. Nielsen.

table A.3.

The similarity between the numbers for this particular time slot is noteworthy, as it was for most other time slots: The meter-based ratings were either similar to or slightly higher than the diary-based ratings. Also, it was found that the HUT's (the Households Using Television, or a measure of the number of households within TMG's panel whose televisions were turned on) were consistently higher. This last finding is not very surprising since the meter collects data on all channels that are being watched, so that there is no chance for "understating". Also, sets can be used for VCR or t.v. games. Moreover, similar findings were reported by AGB (Marketing News, March 14, 1986, page 9), and A.C. Nielsen (Advertising Age, April 28, 1986).

Viewing data can also be used to determine if targeted groups of brand or category users tend to view some kinds of programs more than others.

When exposures of each commercial to each household are defined, actual Reach/Frequency distributions can be determined and compared to the media plan. Efficiency of commercial targeting to user groups can be calculated through comparisons of the number of commercials seen by targeted groups to the number seen by total viewers.

The second area of application, and the focus of this research, is frequency research. As has been argued in chapter 2, most advertising strategy tests are being conducted by using the "conventional" two-way split (that is, two balanced panels within the test market). The meter is based on technology that allows the experimenter to also address small groups of households separately so that any reasonable number of splits can be generated. It then becomes possible to test the effects of increased advertising vs. a new copy vs. different executions of both within one and the same testing system, provided, of course, there is a sufficient number of observations in each cell. In summary, by integrating the potential exposure data, the purchase data, and the in-store promotion data, reach/frequency research can address the advertising strategy issues that were identified in section 7.2.

In addition to the descriptive statistics discussed above, the data allow for a further investigation into the relationship between exposures and purchases. In attempting to model advertising phenomena, attention will be focussed on a number of key marketing measures, similar to those used in Chapters 5 and 6, such as brand switching, penetration or repeat. In doing so, one needs to be aware of a number of analytical issues. To start, there remains the issue of causality, which was addressed in section A.1. However, analyzing single source data between households does not necessarily address this issue satisfactorily. On the one hand, many exposures may lead to more purchases, but the reverse, namely that the advertisement may have been targeted to consumers who were already heavy users and therefore were exposed to more advertising, can also be true. In analyzing within households, the effects of all variables that may or may not have influenced the purchase (such as exposures, retail environmental conditions, coupons, and print advertisements) must be identified. In this way the strength of single source data is best used, although there still is no guarantee that the effect (if any) of more or less exposures has been correctly identified. A third aspect of causality is the consumption vs. purchase dilemma. The added exposures may have a definite effect on consumption (the "intervening variable" between exposure and purchase), but only a delayed effect on purchase and, conceivably, none at all. Lastly, the average advertising strategy test measures short-term effects and is not necessarily concerned with long-term phenomena, which is something the nature of single source data only accentuates.

A key issue that needs to be addressed is the way exposures are formulated as an independent variable. The present way of administering advertising strategy tests, using two panels in a given test city where two frequency/schedule alternatives are being implemented, is, of course, one means of exposure specification. As was discussed in chapter 5, most of the experiments are run for less than a year and the time is collapsed. So, in spite of the fact that it is a viable means, it is not single source. Using time period as the unit of observation may be a second way of formulating exposures in the model. Here the exposures are either the same for each household (not single source), or exposures are specified for each household (single source). In each case the unit of observation is the household by time period. In running both the single source as well as the "not single source" model, an insight can be obtained into the added power single source specification can give the analyst. It is this "net contribution" of single source vs. not single source specification that should be determined. This will allow for an evaluation of the degree to which single source data deliver vis-a-vis their promise.

One can also analyze these single source data using a regression-based model. This approach still looks at events rather than time periods, and a number of factors such as recent prior brand choices or recent prior exposures can be controlled for. This method also allows for the specification of lag/decay assumptions, thereby addressing the issue of short term vs. long term effects of advertising.

Another way of formulating exposures as an independent variable is by using the purchase interval as the unit of observation. McDonald (1970) demonstrated this approach by classifying the type of purchase interval based on the brand switching pattern. He then showed a greater propensity on the part of the consumers to switch to a brand with increasing proportion of exposures (or Opportunity To See, OTS) to that brand's commercials.

In evaluating purchase interval models, it must be noted that these models do not measure increases in volume per transaction and frequency of purchase. Also, it will be particularly difficult to translate the effectiveness index into volume increases.

In spite of these shortcomings, it was concluded that, at this stage, a purchase interval model would offer an appropriate method of analyzing these single source data. From a practical point of view, TMG's need was to evaluate the degree to which single source data could improve its testing service. A decision to implement a single source system in other TMG markets was needed fairly quickly, and little time was available to investigate the usefulness of the individual household model. Consequently, a "tried-and-tested" method, the McDonald (1970) interval model, was applied to analyze the single source data. It was important to attempt to duplicate the findings reported by McDonald and, thereby, validate the system design and evaluate the potential benefit of single source data for TMG's clients. If the results were such that management believed a single source system needed to be implemented in other test cities, an analytical effort, similar to the one reported in chapter 4, could be undertaken. This would focus on the possibility of including additional variables into the individual household model.

A final issue that must be addressed is the possible implications of the results of single source-based advertising research on existing media planning and projection models. Few of them weight exposures or, if they do, weight by some combination of geographical area, target audience, commercial impact, length of commercial, and frequency of exposures. Now it becomes possible to estimate the weight associated with different levels of exposures and "correct" the inputs to the media model accordingly. It is, indeed, the objective of any advertising plan to use the most likely effectiveness of a given exposure level by letting the computer optimize between any number of advertising plans. In this way the advertising plan is based on "true" advertising effectiveness and not on an assumed relationship between purchase behavior and demographics, something that, in chapter 6, was argued to be difficult at best. Moreover, the task of adjusting the present media models to include the information obtained from the advertising effectiveness models is not a small one, and, since it will challenge well-established practices in the U.S., advertising and research industries will probably take considerable time and effort before accepting the system.

In the next section McDonald's (1970) analysis approach will be discussed briefly. His methodology, which allows for determining the short term effect of advertising, served as a partial guide in evaluating single source data.

A.4. McDonald's (1970) Purchase Interval Model.

McDonald's basic objective was to "uncover the existence and the nature of any short term relationship between" panelists' purchasing sequence and opportunity-to-see (OTS). Because TMG's testing service is primarily used by clients to investigate the short term effect of advertising, McDonald's research methodology was of particular interest.

The data McDonald analyzed, which were described in section A.2., covered nine of the fifty product categories and were collected in 1966 for thirteen weeks from two hundred and ten households who reported on their daily purchasing and viewing behavior. Because of the short time frame during which the data were collected, the short term effect of advertising was investigated. The data were further screened for loyal and solus buyers: consumers who repeatedly bought one specific brand, and those who bought a brand only once during the period of observation, respectively. Panelists who had not seen any advertisements were also excluded.

McDonald's analysis methodology looked for associations between OTS and purchasing, "not across but within respondents". In this way, a causal relationship could be investigated, namely that the same person was more likely to buy a certain brand at those times when she had seen advertisements for that brand, and less likely to buy that brand when she had not. It is exactly this issue that TMG's present system is not able to investigate and that may determine the attractiveness of a single source data-based system for its clients.

Analyzing the purchase interval, the space of time between two purchasing occasions, McDonald simply counted the OTS within a purchase interval and classified that interval according to the purchases at the beginning and end of it. Since frequency of purchase could have influenced the relationship, McDonald "standardized" the interval by counting only the OTS in certain fixed days before the purchase.

Purchasing invervals were classified into four groups:

O -> X
X -> O
X -> X
O -> O

(O = any other brand except X)

The two groups of interest were the first two since they showed the difference between the first and second purchase.

Assuming a reasonably static market, McDonald showed that the number of switches into and out of a brand must be equal within any person's record $\pm$ 1 (according to the cut-off point in the sequence) and, hence, is approximately equal in the whole population.

His measure of short term advertising effect was then given by the proportion of switches to (O->X) out of all switches [(O->X) + (X->O)]. Measured across all nine product fields, he observed that when panelists made a switch into or out of X, they were more likely, by 5 % points, to switch to X when, in the meantime, they had seen two or more advertisements for X. Similarly, he observed that when more advertisements for X were seen, there was less likely switching to other brands. He based this observation on his measure of the proportion of OTS that were for X as opposed to other brands.

Having determined the basic effect, McDonald further investigated the effect of different exposure levels on purchasing. Because of the small sample sizes, he counted the 0 and 1 exposures as compared to the 2 and more exposures. The lower line in figure A.5. shows his results.

OTS in Interval

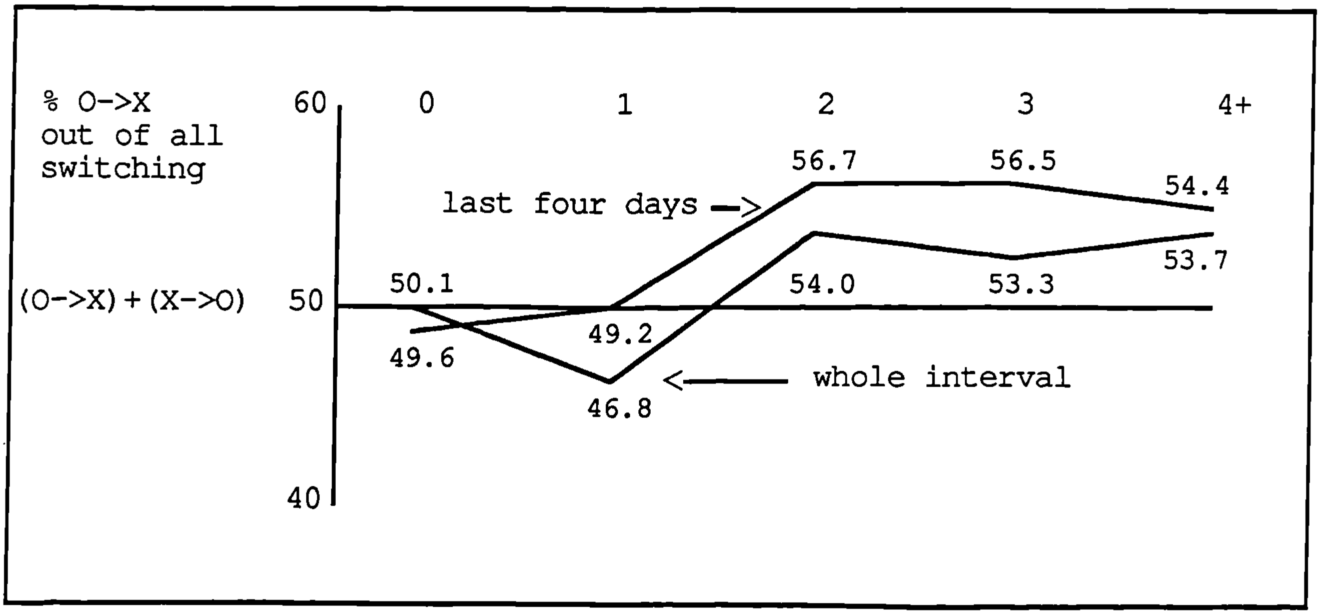


figure A.5.

Two factors stand out. First, when one OTS for X was seen, the proportion of switches to X falls below the 50% mark; and three or more OTS did not appear to have a stronger effect than two. Also, the form of the curve appeared to approximate an S-shape curve.

By examining the short term effect of advertising exposures, counting only those exposures that were seen during the last four days before a purchase, McDonald observed an even greater effect (the top line in figure A.5.). He concluded that the advertising was more effective if it was seen during the same week of the purchase, and that two exposures appeared an optimum number of exposures for the nine brands he analyzed.

Finally, McDonald investigated the effect of print vs. tv advertising and the effect of different cut-off points for OTS prior to purchase. Although he found some "directional patterns", his data were too "thin" to be conclusive. He did not investigate the effect of promotions.

In conclusion, McDonald's approach was able to address key advertising strategy issues that could be investigated only with single source data. Since TMG's need was to attempt to duplicate his study and, thereby, to determine the usefulness of single source data as an extension, and later as a replacement, of its present system, it was decided to apply his methodology to the Charleston data.

What follows in section A.5. are the tentative results of the analysis of the Charleston single source project. Essentially, the analysis is identical to McDonald's approach with the following exceptions:

1.- The effect of coupons was analyzed.

2.- Instead of a four day cut-off, a seven day cut-off was chosen. This was primarily because the purchase intervals for the categories under investigation were longer than those for the brands McDonald had analyzed. At some future point, the effect of different cut-off points could be investigated.

3.- The Charleston data were coded for four different product categories; McDonald reported on the analysis of nine product categories.

A.5. Initial Results of the Charleston Single Source Project.

Since Charleston is a diary market, all data needed to be coded. To keep cost down, it was decided to investigate only three different categories: bathroom tissue, coffee, and toothpaste. The coffee category was further broken down into regular coffee and instant coffee. This was done because it was believed that these were "separate" markets (Urban, Johnson, and Hauser, 1984). The data were collected for six months from November 1983 to May 1984, from approximately one hundred and thirty households. As described in section A.2, purchasing data, coupon data, and viewing data were collected daily. Appendix VII details the raw data.

The measures used in this analysis are listed in table A.4. and are calculated according to the method described in the second column. The third column describes the interpretation when an increase in any of the measures is observed. In contrast, a decrease in any of the three measures would indicate that advertising is losing against other brands.

Advertising Effect Measures

Measure	Calculation	Interpretation
Trial	$\frac{O\text{->}X}{[(O\text{->}X)+(O\text{->}O)]}$	Advertising is stimulating switching to brand X.
Repeat	$\frac{X\text{->}X}{[(X\text{->}X)+(X\text{->}O)]}$	Advertising is helping users to stay loyal.
Net	$\frac{O\text{->}X}{[(O\text{->}X)+(X\text{->}O)]}$	Advertising is stimulating switching to brand X. Expected to be approx. 50%.

table A.4.

So, an effect on Repeat may mean that there is no room for an increase since the brand is "saturated". An effect on Trial or Net can be observed if a "new" brand has not developed much loyalty. Net is the only measure independent of the group of persons involved.

A.5.1. Purchasing and Viewing Behavior for All Brands.

An aggregation of all brand and product category data, across exposures (table A.5.), showed that an analysis of the short term effect of exposures on purchasing could be done more meaningfully when looking at 0, 1 and 2+ exposures; the number of switches at high number of exposures was too "thin" to provide insights. Hence, table A.6. summarizes the data by 0, 1 and 2+ exposures.

Effect of Different Levels of Exposure on Switching

	Exposures									
	0	1	2	3	4	5	6	7	8	9+
O->X	416	72	21	15	2	-	2	-	1	-
X->O	423	70	25	12	2	1	1	-	1	-
X->X	410	56	27	7	-	1	1	-	-	-
O->O	10552 2		779	268	122	39	15	5	1	1

table A.5.

Effect on Trial, Repeat, and Net Measures
by Exposure Level

	Exposures			
	0	1+	0, 1	2+
Trial	.038	.084	.041	.083
Repeat	.492	.451	.486	.462
Net	.496	.502	.497	.494

table A.6.

It can be observed from tables A.5. and A.6. that the relationships are weak. For instance, Repeat shows a negative relationship, and Net does not show a clear direction. Because factors may be operating differently between the four categories, and thereby cancelling out the effects, an analysis for each of the product categories was done.

Overall, though, the data compared favorably, albeit exhibiting somewhat weaker relationships, with the results reported by McDonald. Table A.7. compares the TMG single source data with McDonald's data.

Comparison of TMG's Single Source Data with McDonald's Single Source Data

	Charleston data (1983/84) 7 day window		McDonald data (1970) interval		4 day window	
	0,1	2+	0,1	2+	0,1	2+
Trial	.07	.10	.24	.31		
Repeat	.53	.54	.55	.61		
Net	.49	.50	.49	.54	.50	.56

table A.7.

A.5.2. Purchasing and Viewing Behavior for Individual Product Categories.

The overall purchasing patterns of the four product categories are very different, as illustrated in table A.8. Notably, there are approximately ten times as many tissue purchasing occasions as for the other three product categories, and thirty times as many as for toothpaste. Presumably, since these are all products that most households buy, this is mainly accounted for by a higher frequency of purchase and/or multi-purchase occasions. Because of this, tissue data were chosen for immediate study.

Purchase Patterns by Category

	Tissues	%	Reg. Coffee	%	Inst. Coffee	%	Toothpaste	%
O->X	383	3.6	72	6.1	46	4.2	28	7.8
X->O	383	3.6	68	5.7	54	5.0	30	8.3
X->X	287	2.7	102	8.6	80	7.4	33	9.2
O->O	9667	90.2	942	79.6	906	83.4	269	74.7
Total	10720	100.0	1184	100.0	1086	100.0	360	100.0

table A.8.

Some product categories exhibited more loyalty (that is, less switching) than others. This is shown by the ratio between X->X and [(O->X)+(X->O)] in table A.9. Tissues had the lowest ratio of loyalty to switching, and coffee the highest. It is possible that short term effects in terms of producing switching are less observable in high loyalty markets.

Loyalty Patterns by Category

	X->X	:	[(O->X)+(X->O)]
Tissues	27		73
Regular Coffee	42		58
Instant Coffee	44		56
Toothpaste	36		64

table A.9.

As was argued by McDonald, and elaborated on in section A.4., O->X and X->O should be approximately equal. This holds true for toothpaste and tissues, but does not appear to be the case for coffee. However, for regular and instant coffee the movement goes in opposite directions: With regular coffee, O->X outnumber X->O, and vice versa for instant coffee. By aggregating the instant and regular coffee data, the total switches from O->X become 118, and, from X->O, 112. Although it was argued that regular and instant coffee should be treated as separate markets, these data may suggest that they should be combined. This may also be justified if it can be determined that households purchase instant and regular coffee as complements rather than substitutes. This issue will be further examined in section A.5.6.

The analysis of the data by product category is presented in table A.10. The asterisks show where the shift is positive.

Effect on Trial, Repeat, and Net Measures by Exposure Level for Each Category

	0	1+	0,1	2+
Trial				
Tissues	.033	.102*	.036	.121*
Reg. Coffee	.069	.078*	.076	.013
Inst. Coffee	.054	.034	.051	.021
Toothpaste	.096	.092	.091	.108*
Repeat				
Tissues	.444	.343	.435	.325
Reg. Coffee	.609	.568	.600	.600
Inst. Coffee	.596	.600*	.602	.545
Toothpaste	.536	.514	.490	2.000*
Net				
Tissues	.494	.525*	.497	.603
Reg. Coffee	.514	.515*	.534	.143
Inst. Coffee	.468	.429	.473	.286
Toothpaste	.536	.433	.447	.636*

table A.10.

The instability is largely due to the small sample sizes, as is shown in table A.11. Apart from tissues, which show positive effects on the Trial and Net measures, purchasing behavior for the other categories was limited in terms of the number of switches, thereby causing the instability in the measures.

Effect on Trial and Net Measures by Exposure Level for Each Category

		1 or more OTS	2 or more OTS
O->X	Tissues	74	31
	Reg. Coffee	17	1
	Inst. Coffee	9	2
	Toothpaste	13	7

X->X	Tissues	35	13
	Reg. Coffee	21	9
	Inst. Coffee	18	6
	Toothpaste	18	8

table A.11.

A.5.3. Purchasing and Viewing Behavior for Tissues.

Because of the larger number of purchases and the higher incidence of switching, an in-depth analysis of the tissue category may be more meaningful than the other categories. In this category, three major brands were identified: Banner, Charmin and Cottonelle. Table A.12. details the purchasing behavior for these three brands.

Purchase Patterns for Three Tissue Brands

	Banner		**Charmin**		**Cottonelle**	
		%		%		%
O->X	62	9	75	11	64	10
X->O	51	8	82	12	64	10
X->X	26	4	55	8	42	6
O->O	531	79	458	68	500	75
	670		670		670	

table A.12.

Based on these data the ratios of X->X for all switches [(O->X)+(X->O)] are: Banner 19:81, Charmin 30:70, Cottonelle 25:75. Furthermore, 31% of all purchases involve Charmin; 26%, Cottonelle; and 19%, Banner. Thus, in this sample, Charmin appears the leader and is in the more defensive position, with a higher proportion of its purchasers loyal. Banner has the lowest number overall of both switches and loyal purchases and has a lower proportion of loyal purchases - it should be in a more "attacking" position. Also, the switch "equality" is disturbed as between Banner and Charmin. Banner has more O->X than X->O, which is the reverse for Charmin. This would be consistent with a tendency in this market to move towards Banner and away from Charmin.

Table A.13. details the purchasing patterns for these three brands at different levels of exposures.

Purchase Patterns for Three Tissue Brands by Exposure Level

	0	1+	0,1	2+
Trial				
Banner	.079	.153*	.095	.165*
Charmin	.156	.104	.138	.164*
Cottonelle	.100	.149*	.115	.103
Repeat				
Banner	.400	.270	.377	.188
Charmin	.440	.297	.419	.231
Cottonelle	.371	.529*	.378	.625*
Net				
Banner	.564	.534	.563	.500
Charmin	.513	.381	.478	.474
Cottonelle	.423	.742*	.487	.667*

table A.13.

These data suggest that Banner shows a positive advertising effect for Trial only, but is negative on Repeat and also on Net. Charmin showed a negative effect on all measures except 2+ Trial but this may be largely due to the small sample size since there were only nine O->X intervals with 2+ exposures. Cottonelle, by contrast, is strongly positive on all measures except, again, 2+ Trial; this also may be a function of the few (six 2+ O->X) switches. In any case, the finding that sales for a small share brand showed a relationship to advertising confirms a similar finding discussed in chapters 6 and 7.

It appears that a propensity to switch to, or stay with, Cottonelle is related to the amount of advertising seen for Cottonelle, but that this relationship does not hold for the other two brands. In other words, Cottonelle seems to be both "attacking" as well as "defending"; Banner is "attacking" but not "defending", and Charmin is not "attacking" and seems to be failing to "defend".

Exposure (weight) is only one aspect of advertising. The copy approach and its persuasive power are important other considerations when interpreting these data. Therefore, it may be concluded that the advertising copy for Cottonelle is working well for the brand and the advertising copy for the other two brands is not. Moreover, it is important that the effect for Cottonelle be real and not a chance distribution. Since the O->X and X->O intervals have the required theoretical equality, the Net measure can be interpreted with confidence since it does not depend on variations between persons. However, for the other measures the issue of causality, raised in section A.3., needs to be addressed. That is, there should not be any correlations between individuals buying the brand and seeing its advertising. In other words, are people who buy 0, 1, 2, 3, in Cottonelle equally likely to be light, medium, or heavy viewers of Cottonelle advertising, and similarly for Charmin and Banner? Single source data, in contrast to present TMG data, offer the ability to investigate this. Also, as detailed in the next two sections, what is the purchasing relationship to share of exposures and coupons?

A.5.4. Analysis of Purchasing Patterns for All Product Categories and the Three Tissue Brands by Share of Exposures.

Instead of comparing numbers of exposures, this analysis looks at the relative weight of exposures. Table A.14 shows the distribution of share of exposures for all product categories combined. The uneven distribution is clearly a result of the small number of exposures involved in most cases.

Share of Exposures - All Product Categories

	5	15	25	35	45	55	65	75	85	95
O->X	417	8	16	29	3	24	6	1	-	25
X->O	426	13	19	27	5	20	3	2	1	19
X->X	410	11	26	16	4	16	3	1	1	14
O->O	10560	117	246	194	59	219	79	20	8	282
100%	91	1	2	2	.5	2	.7	.2	.1	3

table A.14.

By comparing the shift between each proportion level (i.e., between up to 5 and 15 or over, up to 15 and 25 or over, and so on), evidence exists of a rising trend for both Trial and Net but not for Repeat (see table A.15.). At higher levels of the share scale, the Net measure tends to show increased effects. These effects appear more clear cut than was apparent in the same data in terms of numbers of exposures.

Effect on Trial, Repeat, and Net Measures by Proportion of Share of Exposures - All Product Categories

		Trial			Repeat			Net		
Up to	Over	Up to	Over	Incr.	Up to	Over	Incr.	Up to	Over	Incr.
5	15	.038	.077	.039	.490	.507	.017	.495	.540	.045
15	25	.038	.071	.033	.490	.458	-.032	.492	.520	.028
25	35	.039	.093	.054	.494	.417	-.073	.491	.533	.042
35	45	.041	.081	.040	.488	.438	-.050	.492	.541	.049
45	55	.041	.084	.043	.488	.438	-.050	.491	.554	.063
55	65	.042	.076	.034	.486	.432	-.054	.494	.561	.067
65	75	.042	.077	.035	.486	.421	-.065	.495	.542	.047
75	85	.042	.079	.037	.486	.444	-.042	.495	.556	.061
85	95	.042	.081	.039	.486	.424	-.062	.494	.568	.074

table A.15.

Table A.16. details the share of exposure data by measure for the individual product categories.

Effect on Trial, Repeat, and Net Measures by Proportion of Share of Exposures for Each Product Category

		Trial			Repeat			Net		
Up to	Over	Up to	Over	Incr.	Up to	Over	Incr.	Up to	Over	Incr.
Tissues										
5	15	.033	.103	.070	.443	.747	-.096	.494	.529	.035
15	25	.033	.105	.072	.440	.352	-.088	.491	.543	.052
25	35	.034	.117	.083	.444	.284	-.160	.490	.560	.070
35	45	.036	.102	.066	.438	.298	-.149	.494	.556	.062
45	55	.035	.109	.074	.437	.300	-.137	.492	.582	.090
55	65	.037	.087	.050	.435	.227	-.208	.499	.528	.029
65	75	.037	.086	.049	.434	.222	-.212	.499	.517	.018
75	85	.037	.088	.051	.433	.250	-.183	.499	.538	.039
85	95	.037	.089	.052	.432	.267	-.165	.498	.560	.062
Reg. Coffee										
5	15	.069	.078	.009	.609	.568	-.041	.514	.515	.001
15	25	.068	.081	.013	.618	.529	-.089	.514	.515	.001
25	35	.070	.076	.006	.617	.517	-.100	.514	.517	.003
35	45	.074	.058	-.016	.626	.435	-.191	.530	.435	-.095
45	55	.073	.060	-.013	.624	.429	-.195	.525	.455	-.070
55	65	.071	.070	-.001	.611	.462	-.149	.508	.563	.055
65	75	.071	.072	.001	.614	.417	-.197	.512	.533	.021
75	85	.071	.075	.004	.614	.417	-.197	.512	.533	.021
85	95	.070	.076	.006	.616	.364	-.252	.512	.533	.021

Inst. Coffee										
5	15	.054	.034	-.020	.596	.600	.004	.468	.429	-.039
15	25	.053	.035	-.018	.594	.607	.013	.469	.421	-.048
25	35	.051	.036	-.015	.593	.619	.026	.465	.429	-.036
35	45	.050	.034	-.016	.574	.833	.259	.447	.667	.220
45	55	.050	.038	-.012	.577	.818	.241	.447	.667	.220
55	65	.048	.048	0	.578	1.000	.422	.443	1.000	.557
65	75	.047	.068	.019	.581	1.000	.419	.443	1.000	.557
75	85	.047	.070	.023	.585	1.000	.415	.443	1.000	.557
85	95	.047	.075	.028	.585	1.000	.415	.443	1.000	.557
Toothpaste										
5	15	.099	.088	-.011	.500	.545	.045	.516	.444	-.072
15	25	.098	.087	-.011	.487	.583	.096	.487	.474	-.013
25	35	.094	.094	0	.521	.533	.012	.489	.462	-.027
35	45	.091	.111	.020	.500	.667	.167	.460	.625	-.165
45	55	.095	.091	-.004	.509	.625	.116	.481	.500	.019
55	65	.095	.083	-.012	.515	.667	.152	.482	.500	.018
65	75	.097	-	-	.517	.667	.150	.491	-	-
75	85	.096	-	-	.517	.667	.150	.491	-	-
85	95	.096	-	-	.517	.667	.150	.491	-	-

table A.16.

Comparing these results to the numbers of exposures data in table A.10., it can be observed that similar differences between the four product categories exist, but that they show more clearly. For tissues, for instance, there appears to be a positive effect on Trial and Net but a negative effect on Repeat. Regular coffee exhibits a negative effect on Repeat, and marginal differences on Trial and Net, which tend to be positive when share of exposures is low or high. The numbers show that regular coffee is positive between 0 and 1+ exposures but not 1 and 2+ exposures, suggesting that advertising is most effective when there is only one exposure. Advertising for instant coffee showed a positive effect on Repeat, which also showed up with the "numbers data", between 0 and 1+ but not 0, 1 and 2+. Negative effects exist on Trial and Net at low share levels but become positive at high exposure share levels. Again, the "numbers data" showed a positive effect for Net between 0 and 1+. The numbers at the high exposure share levels are small. For toothpaste, a positive effect on Repeat is evident, whereas there is mostly a negative effect on Trial, and at lower levels on Net, becoming positive. Again, this is consistent with what the "numbers data" showed.

The same share of exposure analysis was done for the three tissue brands (see table A.17.).

Effect on Trial, Repeat, and Net Measures by Proportion of Share of Exposures for Three Tissue Brands

		Trial			Repeat			Net		
Up to	Over	Up to	Over	Incr.	Up to	Over	Incr.	Up to	Over	Incr.
Banner										
5	15	.079	.154	.075	.400	.270	-.130	.564	.534	-.030
15	25	.082	.152	.070	.400	.250	-.150	.550	.547	-.003
25	35	.081	.170	.089	.412	.192	-.220	.538	.563	.025
35	45	.092	.151	.059	.390	.167	-.223	.544	.559	.015
45	55	.092	.159	.067	.377	.188	-.189	.537	.581	.044
55	65	.105	.104	-.001	.364	.182	-.182	.567	.438	-.129
65	75	.107	.080	-.027	.353	.222	-.131	.569	.364	-.205
75	85	.106	.091	-.015	.348	.250	-.099	.563	.400	-.163
85	95	.105	.093	-.012	.343	.286	-.057	.558	.444	-.114
Charmin										
5	15	.155	.105	-.040	.440	.297	-.143	.513	.381	-.132
15	25	.152	.108	-.044	.433	.303	-.130	.504	.395	-.105
25	35	.151	.098	-.053	.452	.136	-.316	.508	.345	-.163
35	45	.149	.086	-.063	.430	.188	-.242	.500	.316	-.184
45	55	.147	.092	-.055	.426	.200	-.226	.496	.333	-.163
55	65	.145	.083	-.062	.415	.143	-.272	.486	.333	-.153
65	75	.143	.107	-.036	.412	.167	-.245	.483	.375	-.108
75	85	.144	.077	-.067	.409	.200	-.209	.483	.333	-.150
85	95	.144	.077	-.067	.409	.200	-.209	.483	.333	-.150
Cottonelle										
5	15	.100	.150	.050	.367	.563	.196	.418	.767	.349
15	25	.100	.154	.054	.367	.563	.196	.424	.759	.335
25	35	.095	.193	.098	.366	.615	.249	.422	.808	.386
35	45	.107	.158	.051	.374	.714	.340	.456	.857	.401
45	55	.105	.179	.074	.376	.800	.424	.452	.923	.471
55	65	.108	.184	.076	.388	.667	.279	.475	.875	.400
65	75	.109	.200	.091	.394	.500	.106	.479	.857	.378
75	85	.108	.214	.106	.394	.500	.106	.479	.857	.378
85	95	.108	.214	.106	.394	.500	.106	.479	.857	.378

table A.17.

The results reinforce the observations made earlier (see table A.13.). Cottonelle shows a relatively strong relationship with increasing exposure share at all levels, both in "attack" and "defense", but Charmin and, for the most part Banner, show the opposite. Cottonelle appears to be winning against the other two brands.

A.5.5. Analysis of Purchasing Patterns With and Without Coupons.

The coupon data allow for an investigation of the relationship of switching to coupon redemption and the interactions between advertising exposure and coupon redemption. Table A.18. shows the distibution of purchases with and without coupons for all four product categories and for each product category separately.

Coupon and Non-Coupon Purchase Patterns by Category

	4 Prod. Categ.				Tissues				Reg.Coffee	
	Coupon		Non-Coupon		Coupon		Non-Coupon		Coupon	
Base	2659	%	10691	%	1936	%	8784	%	184	%
O->X	124	5	405	4	76	4	307	3	10	7
X->O	127	5	408	4	76	4	307	3	8	5
X->X	96	4	406	4	45	2	242	3	17	11
O->O	2312	87	9472	89	1739	90	7928	90	113	76

	Reg. Coffee		Inst. Coffee				Toothpaste			
	Non-Coupon		Coupon		Non-Coupon		Coupon		Non-Coupon	
Base	1036	%	480	%	606	%	95	%	265	%
O->X	62	6	24	5	22	4	14	15	14	5
X->O	60	6	33	7	21	3	10	11	20	8
X->X	85	8	30	6	50	8	4	4	29	11
O->O	829	80	393	82	513	85	67	71	202	76

table A.18.

In the case of toothpaste, there is evidence that switching (O->X) is associated with coupons, and loyalty with non-coupons. Marginal evidence of the same pattern exists for instant coffee. But there seems to be no difference between coupon and non-coupon for the other two products.

Table A.19. shows the results of the Trial, Repeat and Net measures for all four product categories together. There is some suggestion in these figures (five out of six examples shown) that there is a stronger shift among coupon than non-coupon cases; especially in Repeat, where coupon is positive and non-coupon negative. This may suggest that there may indeed be some interaction between coupon and advertising.

Effect on Trial, Repeat, and Net Measures by Exposure Level for Coupon and Non-Coupon Purchases: All Product Categories

	0	1+	Incr.	0,1	2+	Incr.
Trial						
Coupon	.044	.100	.056	.049	.093	.044
Non-Coupon	.036	.080	.044	.039	.080	.041
Repeat						
Coupon	.424	.509	.085	.427	.609	.082
Non-Coupon	.510	.451	-.059	.502	.459	-.043
Net						
Coupon	.490	.509	.019	.500	.526	.026
Non-Coupon	.478	.500	.022	.499	.484	-.015

table A.19.

The picture is mixed for the different product categories, as shown in table A.20. For tissues, coupon shows an interaction greater than non-coupon (except for 2+ Repeat). There is more switching in this product category than in the other three, and since tissues have by far the larger number of purchasing occasions, this is the main influence on the figures in table A.19. In general, regular coffee shows an opposite picture: no strong positive shifts, and a negative interaction with coupons on Repeat and Net. Thus, in this product category, where coupons are involved with a purchase, the effect of coupons tends not to be associated with advertising. Instant coffee shows a strong positive interaction with coupons in the case of Repeat, which is the opposite of regular coffee. A slight interaction with coupons in Net, but not Trial, is evident. For toothpaste a general negative interaction is observable. However, the positive 2 figures on the right of table A.20. are based on small sample sizes that an interpretation needs to be made with caution (O->X: 2 C 2+ NC 2+; X->X: 1 C 2+, 7 NC 2+).

Effect on Trial, Repeat, and Net Measures by Exposure Level for Coupon and Non-Coupon Purchases: for Each Category

	0	1+	Incr.	0,1	2+	Incr.
Tissues						
Trial						
Coupon	.034	.137	.103	.039	.151	.112
Non-Coupon	.033	.094	.061	.035	.113	.078
Repeat						
Coupon	.372	.370	-.002	.381	.250	-.131
Non-Coupon	.458	.333	-.125	.447	.344	-.103
Net						
Coupon	.491	.528	.037	.493	.571	.078
Non-Coupon	.495	.524	.029	.498	.523	.025

Reg. Coffee						
Trial						
Coupon	.080	.087	.007	.087	-	-
Non-Coupon	.067	.077	.010	.074	.015	-.059
Repeat						
Coupon	.750	.400	-.350	.682	.667	-.015
Non-Coupon	.584	.594	.010	.586	.583	-.003
Net						
Coupon	.615	.400	-.215	.588	-	-
Non-Coupon	.500	.536	.036	.526	.167	-.359
Inst. Coffee						
Trial						
Coupon	.064	.033	-.031	.062	-	-
Non-Coupon	.044	.035	-.009	.043	.030	-.013
Repeat						
Coupon	.408	.714	.306	.458	.750	.292
Non-Coupon	.764	.500	-.264	.734	.429	-.305
Net						
Coupon	.420	.429	.009	.429	-	-
Non-Coupon	.552	.429	-.123	.541	.333	-.208
Toothpaste						
Trial						
Coupon	.209	.132	-.077	.188	.118	-.070
Non-Coupon	.053	.078	.025	.054	.104	.050
Repeat						
Coupon	.333	.200	-.133	.250	.500	.250
Non-Coupon	.632	.567	-.065	.564	.700	.136
Net						
Coupon	.600	.556	-.044	.571	.667	.096
Non-Coupon	.462	.381	-.081	.346	.625	.279

table A.20.

An analysis of the three tissue brands in table A.21. confirms the observations made earlier. Cottonelle shows a positive relationship on all measures in both coupon and non-coupon, with a stronger interaction in coupon in the case of Repeat (that is, coupons are interacting with advertisements to keep buyers loyal to this brand). For Banner, coupons are having some effect (in interaction with advertising) in inducing Trial, but not Repeat or Net. Charmin is negative on all counts showing that the advertising for this brand is not being effective with or without coupons.

Effect on Trial, Repeat, and Net Measures by Exposure Level for Coupon and Non-Coupon Purchases: for Three Tissue Brands

	Cottonelle			Banner			Charmin		
	0	1+	Incr.	0	1+	Incr.	0	1+	Incr.
Trial									
Coupon	.092	.129	.037	.183	.310	.127	.317	.161	-.156
Non-Coupon	.102	.154	.052	.060	.127	.067	.123	.089	-.034
Repeat									
Coupon	.250	.500	.250	.500	.375	-.125	.591	.400	-.191
Non-Coupon	.390	.533	.143	.333	.190	-.143	.397	.281	-.116
Net									
Coupon	.438	.800	.362	.579	.474	-.105	.690	.625	-.065
Non-Coupon	.420	.731	.311	.556	.564	.008	.453	.324	-.129

table A.21.

A.5.6. Additional Analysis Issues.

These data lend themselves to a number of additional analyses. At this point, though, given the small sample sizes, the nature of these analyses needs to be exploratory; it is believed that an investigation into causal relationships based on further disaggregation of this sparse data set would generate inconclusive insights. Yet, to illustrate the advantage of these data over present TMG data, an example of an individual sequence analysis will be given.

The object of looking at individual purchasing sequences is to search for other ideas for defining analysis. McDonald's single interval methodology has the weakness that it treats each purchasing occasion as an independent unit and does not, therefore, allow for investigating the effect on overall buying patterns or habits, or for estimating the possible build-up of advertising effect.

To look at purchasing sequences first, table A.22. shows the day an instant or regular coffee brand was purchased, the interval of days between purchases, and the brands purchased, either H, S, or B. Three main patterns are observable. At one extreme, there is solus buying; at another extreme is a very mixed buying pattern; and, in between, there are several cases where there are long runs of one or two brands interspersed with occasional switches into and out of other brands.

Purchase Sequence for Instant and Regular Coffee Brands

	Day	Brand		Day	Brand		Day	Brand
	252	H		206	B		206	B (R)
+7	259	H	+12	212	B	+12	212	B (R)
+7	266	H	+55	267	S	+40	252	H (I)
+36	302	H	+35	302	B	+7	259	H (I)
+102	039	S	+6	308	S	+7	266	H (I)
+4	043	H	+62	005	B	+1	267	S (R)
+1	044	H	+8	013	S	+35	302	H (I),B(R)
+3	047	H	+13	026	S	+6	308	S (R)
+1	048	H	+7	033	S	+62	005	B (R)
+43	091	H	+30	063	S	+8	013	S (R)
+6	097	H	+21	084	S	+13	026	S (R)
			+7	091	S	+7	033	S (R)
						+6	039	S (I)
Mean:	23 days			21 days		+4	043	H (I)
						+1	044	H (I)
						+3	047	H (I)
						+1	048	H (I)
						+15	063	S (R)
						+21	091	H (I),S(R)
						+6	097	H (I)

table A.22.

Few people have more than three and very few more than four brands in their "evoked set". Also, the sequence indicates that purchases are made irregularly; usually the intervals are long as is indicated by the mean number of days per interval.

The irregularity of purchasing interval length may provide support for the argument that purchases for intant and regular coffees need to be combined. Although there still are some long intervals without purchases, the pattern seems slightly more regular. Also, some other interesting observations can be made. This buyer swings between periods of buying regular coffee and periods of buying instant. At one point, moving from a regular to an instant sequence, she stays with the same brand (S) in its instant version before switching back to her former instant brand, H. On two occasions she buys an instant and a regular brand on the same day. This purchasing sequence suggests a complementary buying pattern.

Another issue of interest is the effect of cumulative build-up of advertising leading to a switch. In other words, at what level of advertising exposure does a consumer switch after a sequence of loyal purchases of a given brand?

Table A.23. shows an example of a purchasing sequence of two instant coffee brands, F and H. Before the switch to H, it can be observed that there was a gradual build-up toward H, away from F, leading to a switch to H. After the H purchases, a gradual build up towards F, away from H, is shown, leading to subsequent purchases of F.

Purchase Sequence and Exposure to Advertising of two Instant Coffee Brands

Purchases:	F	F	F	F	H	F	F	F	F	F	F	F	F
Exposures:													
F		-	-	1	1		1	1	3	2	-	-	2	-
H		1	-	-	2		-	-	1	-	1	-	2	1
other brands		5	-	1	-		-	1	2	2	6	1	2	2

Before the switch to H:

		H		F	Exposures Shares H	Exposures Shares F
4 intervals:	2 F, 3 H	60	:	40	.27	.18
3 intervals:	2 F, 2 H	50	:	50	.40	.40
2 intervals:	2 F, 2 H	50	:	50	.40	.40
1 interval:	1 F, 2 H	67	:	33	.67	.33

After the H purchase:

1st interval:	0 H, 1 F	0	:	100	0	1.00
2 intervals:	0 H, 2 F	0	:	100	0	.67
3 intervals:	1 H, 5 F	17	:	83	.11	.56
4 intervals:	1 H, 7 F	12	:	88	.08	.54
5 intervals:	2 H, 7 F	22	:	78	.10	.35

etc.

table A.23.

A third area of interest, one not addressed by McDonald, is solus buyers. By definition, these buyers do not provide any information on switching, so the analytical approach needs to be different. For instance, to see whether advertising has any effect in bringing forward purchases, the interval length could be the unit of observation. Hypothetically, the pattern could be shorter intervals associated with exposures interspersed with longer intervals (while stocks are used up) less associated with exposures.

A final issue for analysis is the "standardization" of very long purchase intervals by counting only those exposures that occurred a certain number of days prior to purchase. McDonald's research clearly suggested that the effect of advertising exposure closer to the final purchase is stronger (see figure A.5.). This analysis could also be done with TMG's single source data. For instance, table A.24. shows an example of a purchasing and exposure sequence. From these data it is clear that the exposure sequence is not continuous; there often is a long sequence where this buyer did not see any advertising or perhaps just one a day, interspersed with "bunching" of exposures where several are seen in a short period of time. By counting only those advertisements seen during a certain number of days prior to purchase, further insight may be obtained into the short term effect of advertising. As can be recalled from section A.3., the analysis of the short term effect of advertising was based on a seven day cut-off.

Purchase and Exposure Sequence for One Household: Coffee

Day	Purch.	Exp.	Day	Purch. (cont'd)	Exp.	Day	Purch. (cont'd)	Exp.
306	F		009		F	055		B
314		M	012		F	059		B
321		F	021		F	061		B
326		F	023		F	063	F	
333		F M	030		F	065		B F F
336		B	031		F	067		B
339		F	036		F	070		F
340		B	037		F	072		F
342		S	041	F		074		B
344		S	045		F	075		B
363		F	050		B M	079		F
364		S B	051	F	F	082	F	
365		M F	054		B			

table A.24.

A.6. Conclusions.

In summary, it has been observed that single source data has received renewed attention. TMG, partly in response to the findings presented in this dissertation, as well as a number of other U.S. and European research organizations, are presently investigating the usefulness of single source data. This interest is based on the original and current promise of single source data to define advertising targets more effectively and therefore to allow the experimenter to measure the relationship of sales to advertising more precisely. This has led to an investigation of key advertising strategy issues for established brands that, as was argued in section 7.2., TMG's present testing system addresses inconclusively.

In investigating currently available single source data collection systems, TMG concluded that these systems had shortcomings for frequency research, and a subsequent developmental effort was made to design a system that could improve the precision in specifying t.v. commercial exposure at the single source level. Although the outcome is unknown at this time, it was hypothesized that this would influence presently available media models.

There is a strong rationale for and considerable empirical evidence that effective frequency varies by subgroup - particularly brand and category usage - that led to an investigation of a number of models for determining effective frequency by subgroup.

McDonald's (1970) interval method was chosen to investigate the usefulness of single source data. Although it was recognized that this methodology did not address a number of analytical issues important to this research, such as the effect of advertising on the amount purchased or on the frequency of purchase, it was believed that it would allow TMG to decide whether or not to introduce single source technology in other test markets. Time and cost factors did not permit a thorough investigation of the usefulness of the individual household methodology for the analysis of single source data.

The analysis of the Charleston single source data compared favorably to McDonald's results. Although the relationship between exposures and purchases was somewhat weaker, directional evidence existed of relationships similar to those reported by McDonald. It is important to note that not all advertising needs to show an effect. In fact, as was shown in chapters 5 and 6, approximately 60% of the advertising strategy tests appeared to cause an effect. In addition, in chapter 2, it was noted that significantly fewer reported studies had identified a relationship between advertising and sales. Therefore, it was to be expected that the analysis of the single source data would reveal only some short term effects. People differ, and some respond to changes in advertising strategy whilst others do not.

However, on the basis of the findings reported in this Appendix, it was shown that research into the advertising-sales relationship could indeed be enhanced by the availability of single source data. The inclusion of exposures and share of exposures, in addition to the coupon data, did reveal evidence of the short term effect of advertising. The key advertising strategy issues identified in section 7.2. that could not be addressed by TMG's present system can now be investigated; notably, tests of more than two different schedules can now be performed, thereby allowing the experimenter to determine the optimal advertising level or best copy strategy.

The analysis of the Charleston single source data does not provide a basis for assessing the validity of the specific findings of the advertising strategy tests detailed in chapters 5 and 6. In fact, due to the small sample sizes, the investigation into the usefulness of single source data has been necessarily exploratory in nature and has focussed primarily on the ability of the new system design to examine the advertising-sales relationship in more detail than was possible with TMG's present system. In spite of this, some evidence was obtained of the responsiveness to advertising of small share brands as opposed to large share brands.

In conclusion, since single source data allow for the measurement of the effect of advertising based on real exposures as opposed to inferred ones, their use may lead to additional insights into, for instance, Brand Loyalty, market structure, or the effect of other promotional tools. Accompanied by further research into the appropriateness of the individual household methodology for analyzing these data, the implementation of a single source system will provide an alternative data source that will enable clients to continue to investigate the relationship of advertising to sales for their established brands.

Appendix II

TMG Operations.

In executing a TMG advertising weight or copy test, the treatment is administered by controlling the advertising message shown on each household's TV. This is possible because (a) each household recruited within a group is on the same cable, and households in different groups are on a different cable (e.g., the same split cable TV); and (b) TMG has the facility to cut in and alter the broadcast signal being transmitted to the household via each cable. By cutting in on this signal TMG "treats" each group with a different advertising message for a specific brand by modifying the type or intensity of commercial shown. Such an unobtrusive measure circumvents the demand characteristic problems of laboratory type experiments and yet provides the necessary controls needed to isolate the small effects of the advertising change on the firm's sales.

Both the control and treatment panels are recruited and matched on a series of demographic variables such as age, income and shopping behavior. The average panel size for each group in each city is approximately one thousand households. The panel members receive an incentive to participate. Those panelists who do not either report (diary) or use their identification card (scanner) consistently are being eliminated from the analysis (and may be removed from the panel altogether). The panelists who are included in the analysis are referred to as the "static sample". Those panelists who drop out of the panel will be replaced by newly recruited and equally well matched panelists, thereby maintaining the representativeness of the overall panel.

The data collected from each household, which is being reported to clients on a 4-week aggregated basis, include each household's puchases for a wide range of consumer non-durables. Also recorded are the identity of the store shopped and the price paid. In the case of diary panels, the household also indicates if it bought the product on deal ("perceived deal"). In the case of scanner panels, additional marketing information can be obtained relating to the store environment (such as the presence or absence of displays, advertising featuring, etc.). These additional store environment data are collected only as requested by a client.

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Testing the Effectiveness of Advertising Strategies for Established Brands: An Empirical Investigation into and a Technique for Measuring the Response of Established Brands' Sales to Changes in Advertising Weight and Copy Using Continuous Panel Records

Volume 2 of 2 Volumes

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Volume II: Appendices III - VII

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Appendix III

P2V Output for Sensitivity Calculation for Two Brands.

Dishwashing Liquids - A

PAGE 13 P2V - SOAP - BRAND 287 - STORE ANALYSIS-

ANALYSIS OF VARIANCE FOR 1-ST
DEPENDENT VARIABLE -

VA01	VA02	VA03	VA04	VA05	VA06	VA07	VA08	VA09
VA10	VA11	VA12	VA13	VA14	VA15	VA16	VA17	VA18
VA19	VA20	VA21	VA22	VA23	VA24	VA25	VA26	VB01
VB02	VB03	VB04	VB05	VB06	VB07	VB08	VB09	VB10
VB11	VB12	VB13	VB14	VB15	VB16	VB17	VB18	VB19
VB20	VB21	VB22	VB23	VB24	VB25	VB26		

	SOURCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F	TAIL PROB.	GREENHOUSE GEISSER PROB.	HUYNH FELDT PROB.	REGRESSION COEFFICIENTS
	1-ST COVAR (pretest)	0.05266	1	0.05266	1.30	0.2802			
	2-ND COVAR (category)	0.14198	1	0.14198	3.51	0.0903			0.00147
	ALL COVARIATES	7.20321	2	3.60160	89.14	0.0000			0.45893
1	ERROR (stores)	0.40405	10	0.04041					
	PAN	0.00429	1	0.00429	0.15	0.7086			
	1-ST COVAR	0.05723	1	0.05723	1.97	0.1903			
	2-ND COVAR	0.37720	1	0.37720	13.01	0.0048			0.00267
	ALL COVARIATES	0.94128	2	0.47064	16.24	0.0007			0.79885
2	ERROR (panel x stores)	0.28983	10	0.02898					
	ISS (weeks)	0.20213	25	0.00809	0.47	0.9877	0.8452	0.9560	
	1-ST COVAR	2.32302	1	2.32302	133.73	0.0			
3	ERROR	5.19387	299	0.01737					0.00417
	PI (panel x weeks)	0.29143	25	0.01166	0.79	0.7582	0.5869	0.6798	
	1-ST COVAR	0.96435	1	0.96435	65.11	0.0			
4	ERROR	4.42839	299	0.01481					0.00420

EPSILON FACTORS FOR DEGREES OF FREEDOM ADJUSTMENT

ERROR TERM	GREENHOUSE-GEISSER	HUYNH-FELDT
3	0.2605	0.6071
4	0.2488	0.5495

POOLED REGRESSION COEFFICIENTS

1-ST COVARIATE	0.00382
2-ND COVARIATE	0.08316

\# Stores = 13

Average Brand Volume = $\bar{x}$ = .1643

$$\% \text{ LSD} = t \sqrt{\frac{2 \times MSE}{13 \times 52}} \div \bar{x}$$

(stores) (weeks)

Since panel by store is significant (F=1.80), 95% t = 2.23 for 10 df

$$\% \text{ LSD} = \pm 2.23 \sqrt{\frac{2 \times .029}{13 \times 52}} \div .1643 = \pm 12.6\%$$

Dishwashing Liquid - B

PAGE 13 P2V - SOAP - BRAND 335 - STORE ANALYSIS-

ANALYSIS OF VARIANCE FOR 1-ST
DEPENDENT VARIABLE - VA01 VA02 VA03 VA04 VA05 VA06 VA07 VA08 VA09
VA10 VA11 VA12 VA13 VA14 VA15 VA16 VA17 VA18
VA19 VA20 VA21 VA22 VA23 VA24 VA25 VA26 VB01
VB02 VB03 VB04 VB05 VB06 VB07 VB08 VB09 VB10
VB11 VB12 VB13 VB14 VB15 VB16 VB17 VB18 VB19
VB20 VB21 VB22 VB23 VB24 VB25 VB26

	SOURCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F	TAIL PROB.	GREENHOUSE GEISSER PROB.	HUYNH FELDT PROB.	REGRESSION COEFFICIENTS
	1-ST COVAR (pretest)	0.00867	1	0.00867	2.18	0.1702			0.00201
	2-ND COVAR (category)	0.02432	1	0.02432	6.13	0.0328			0.29459
	ALL COVARIATES	0.31504	2	0.15752	39.68	0.0000			
1	ERROR (stores)	0.03970	10	0.00397					
	PAN	0.01168	1	0.01168	3.13	0.1074			
	1-ST COVAR	0.00498	1	0.00498	1.33	0.2748			0.00493
	2-ND COVAR	0.02734	1	0.02734	7.32	0.0221			0.40711
	ALL COVARIATES	0.11273	2	0.05637	15.10	0.0010			
2	ERROR (panel x stores)	0.03733	10	0.00373					
	ISS (weeks)	0.05081	25	0.00203	0.95	0.5313	0.4621	0.4973	
	1-ST COVAR	0.04209	1	0.04209	19.73	0.0			0.00289
3	ERROR	0.63767	299	0.00213					
	PI (panel x weeks)	0.05335	25	0.00213	0.86	0.6642	0.5354	0.6094	
	1-ST COVAR	0.03197	1	0.03197	12.85	0.0004			0.00452
4	ERROR	0.74356	299	0.00249					

EPSILON FACTORS FOR DEGREES OF FREEDOM ADJUSTMENT

ERROR TERM	GREENHOUSE-GEISSER	HUYNH-FELDT
3	0.2346	0.4874
4	0.2561	0.5844

POOLED REGRESSION COEFFICIENTS

1-ST COVARIATE	0.00281
2-ND COVARIATE	0.28024

\# Stores = 13

$\bar{x} = .0306$

$$\% \text{ LSD} = \pm t \sqrt{\frac{2 \times MSE}{13 \times 52}} \div \bar{x}$$

(stores) (weeks)

Since panel by store is significant (F = 1.61), 95% t = 2.23 for 10 df

$$\% \text{ LSD} = \pm 2.23 \sqrt{\frac{2 \times .0037}{13 \times 52}} \div .0306 = \pm 24.1\%$$

Appendix IV

The Advertising Strategy Database.

OBS	STUDY	CTYPE	CLIENT	CAT4	CATDESC4	CAT1	CATDESC1	CAT2	CATDESC2	CAT3	CATDESC3	CITIES	COPYA	COPYB
1	01409A	1	HEINZ	*	WGHT.WTCHR	24301	FRZN.PDDNG	24303	FRZN.NOVLT	.		P		
2	01409B	1	HEINZ	*	WGHT.WTCHR	24301	FRZN.PDDNG	24303	FRZN.NOVLT	.	.	Q	.	.
3	01415A	1	HEINZ	*	BARBQ.SC	10807	CNDMNTS.SC	.	.	.	.	Q	.	.
4	01415B	1	HEINZ	*	BARBQ.SC	10807	CNDMNTS.SC	.	.	.	.	F	.	.
5	02599A	1	GENERAL.MILLS	*	HONEY.NUT	10501	CEREAL.RTF	.	.	.	.	F	.	.
6	03804A	1	HALLMARK	*	HALLMARK	40001	GREET.CARD	.	.	.	.	Q	.	.
7	03804B	1	HALLMARK	*	HALLMARK	40001	GREET.CARD	.	.	.	.	B	.	.
8	03804C	1	HALLMARK	*	HALLMARK	40001	GREET.CARD	.	.	.	.	C	.	.
9	04107A	1	GEN.ELEC	*	LIGHT.BULB	11802	HHSUP.BULB	.	.	.	.	B	.	.
10	04107B	1	GEN.ELEC	*	LIGHT.BULB	11802	HHSUP.BULB	.	.	.	.	Q	.	.
11	07123A	1	GENERAL.FOODS	*	RAISIN.GPP	10501	CEREAL.RTF	.	.	.	.	P	WLDRNS.MAN	SME.INPU
12	07131A	1	GENERAL.FOODS	*	KL.AD.CNTR	13601	SFTDRNK.RG	13602	SFTDRNK.LO	13603	SFTDRNK.MX	B	.	.
13	09629A	1	COLGATE	*	DYNAMO	13508	HVY.DTRGNT	.	.	.	.	P	.	.
14	09629B	1	COLGATE	*	DYNAMO	13508	HVY.DTRGNT	.	.	.	.	E	.	.
15	09629C	1	COLGATE	*	DYNAMO	13508	HVY.DTRGNT	.	.	.	.	C	.	.
16	10906A	1	KALKAN	*	CNND.CTFD	12706	PETFD.PETP	.	.	.	.	B	.	.
17	10906B	1	KALKAN	*	CNND.CTFD	12706	PETFD.PETP	.	.	.	.	Q	.	.
18	17602A	1	BOYL.MIDWAY	*	BLACK.FLAG	11830	HH.INSCREP	.	.	.	.	Q	REAL.PEOPL	SME.MARYJO
19	18807A	1	DELMONTE	*	AL.STK.SC	10805	MEAT.SC	.	.	.	.	E	THNK.STKBR	JERKY.SME
20	18901A	1	NESTLE	*	NSTL.QUIK	10603	COCO.MLKMD	.	.	.	.	E	.	.
21	20704A	1	GENERAL.FOODS	*	SNKA	10701	COFF.REG	10702	COFE.INSTN	.	.	Q	PEOPLE	SME.PB.YNG
22	20720A	1	GENERAL.FOODS	*	KOL.AID	13601	SFTDRNK.RG	13602	SFTDRNK.LO	13603	SFTDRNK.MX	Q	.	.
23	20720B	1	GENERAL.FOODS	*	KOL.AID	13601	SFTDRNK.RG	13602	SFTDRNK.LU	13603	SFTDRNK.MX	Q	.	.
24	20788A	1	GENERAL.FOODS	*	CNTRY.TIME	13601	SFTDRNK.RG	13602	SFTDRNK.LU	13603	SFTDRNK.MX	C	HARDWORKIN	SURPRISE
25	20788B	1	GENERAL.FOODS	*	CNTRY.TIME	13601	SFTDRNK.RG	13602	SFTDRNK.LO	13603	SFTDRNK.MX	Q	SUMMERTIME	SME.GRMPA
26	20788C	1	GENERAL.FOODS	*	CNTRY.TIME	13601	SFTDRNK.RG	13602	SFTDRNK.LO	13603	SFTDRNK.MX	Q	HARDWORKIN	SME.GRMPA

OBS	COPYTEST	WEGHTEST	STRATEST	NEWPROD	OTHTEST	OTDESCRI	NPANELS	PREBEGIN	PREEND	TSTBEGIN	TSTEND	STAT	WDIFF	TVDOLLC	TVDOLLT
1	0	1	0	0	0		2	267	283	319	334	2114		0	4
2	0	1	0	0	0	.	2	267	283	319	334	1920	.	0	4
3	0	1	0	0	1	COUPON	2	213	236	265	292	2083	.	0	4.3
4	0	1	0	0	1	COUPON	2	213	236	265	292	1843	.	0	6.7
5	0	1	0	0	0	.	2	110	161	162	213	1311	38		.
6	0	1	0	0	0	.	2	250	261	262	325	1426	57	.	.
7	0	1	0	0	0	.	2	250	261	262	325	1028	57	.	.
8	0	1	0	0	0	.	2	250	261	262	325	1370	57	.	.
9	0	1	0	0	0	.	2	250	257	258	317	1549	140	9	16
10	0	1	0	0	0	.	2	250	257	258	317	1788	140	9	16
11	1	0	0	0	0	.	2	182	233	234	269	1733	.	.	.
12	0	1	0	0	0	.	2	178	229	230	257	1391	.	.	.
13	0	1	0	0	1	COUPONS	2	202	253	254	305	1535	.	12.5	22.5
14	0	1	0	0	1	COUPONS	2	202	253	254	305	1536	.	12.5	22.5
15	0	1	0	0	1	COUPONS	2	202	253	254	305	1693	.	5	7
16	0	1	0	0	0	.	2	206	245	246	285	1417	50	4.4	9.8
17	0	1	0	0	0	.	2	206	245	246	285	1417	50	4.4	9.8
18	1	0	0	0	0	.	2	163	166	215	238	2047	.	.	.
19	1	0	0	0	0	.	2	229	271	284	323	1675	.	.	.
20	0	1	0	0	0	.	2	163	206	207	234	1685	.	.	.
21	1	0	0	0	0	.	2	110	161	162	229	2200	.	.	.
22	0	1	0	0	0	.	2	158	209	210	229	1710	.	10.9	16.3
23	0	1	0	0	0	.	2	158	209	210	229	1369	.	10.9	16.3
24	1	0	0	0	0	.	2	110	161	162	189	1564	.	.	.
25	1	0	0	0	0	.	2	110	161	162	189	1604	.	.	.
26	1	0	0	0	0	.	2	.	.	159	190	1886	.	.	.

OBS	STC	CTYPE	CLIENT	CAT4	CATDESC4	CAT1	CATDESC1	CAT2	CATDESC2	CAT3	CATDESC3	CITIES	COPYA	[illegible]
27	20783D	1	GENERAL.FOODS	*	KOOL.AID	13601	SFTDRNK.RG	13602	SFTDRNK.LO	13603	SFTDRNK.MX	E	VALUE.SODA	SME.UN[illegible]
28	20783E	1	GENERAL.FOODS	*	KOOL.AID	13601	SFTDRNK.RG	13602	SFTDRNK.LO	13603	SFTDRNK.MX	B	KIDS.DAY	SME.UN[illegible]
29	21504A	1	KIM.CLARK	*	HUGGIES	12613	PPRPPD.DPR	.	.	.	.	C	.	.
30	21504B	1	KIM.CLARK	*	HUGGIES	12613	PPRPPD.DPR	.	.	.	.	B	.	.
31	21504C	1	KIM.CLARK	*	HUGGIES	12613	PPRPPD.DPR	.	.	.	.	Q	.	.
32	33811A	1	DRACKETT	*	WINDEX	11706	WINDOW.CLN	.	.	.	.	C	.	.
33	34009A	1	NESTLE	*	NESTEA	14001	TEA.INSTNT	14002	TEA.PCKGD	14004	TEA.BAGS	B	.	.
34	34009B	1	NESTLE	*	NESTEA	14001	TEA.INSTNT	14002	TEA.PCKGD	14004	TEA.BAGS	Q	.	.
35	34120A	1	WARNER.LAMBERT	*	LISTERINE	37203	ORL.HYGN	.	.	.	.	B	WOW	TWC.ADAY

OBS	COPYTEST	WEGHTEST	STRATEST	NEWPROD	OTHTEST	OTDESCRI	NPANELS	PREBGIN	PPEND	TSTBEGIN	TSTEND	STAT	WDIFF	TVDOLLC	TVDOLLT
27	1	0	0	0	0	.	2	.	.	155	186	2058	.	.	.
28	1	0	0	0	0	.	2	107	158	159	190	1339	.	.	.
29	0	1	0	0	0	.	2	134	185	186	225	2103	43	19.8	27.8
30	0	1	0	0	0	.	2	134	185	186	225	2103	43	19.8	27.8
31	0	1	0	0	0	.	2	134	185	186	225	2103	43	19.8	27.8
32	0	1	0	0	0	.	2	153	176	205	228	1429	.	.	.
33	0	1	0	0	0	.	2	106	157	158	185	1376	100	.	.
34	0	1	0	0	0	.	2	106	157	158	185	1596	52	.	.
35	1	0	0	0	0	T.TWC.C.SHKBOTT	2	110	161	162	201	1457	.	.	.

OBS	STUDY	CTYPE	VOLCH	CHDIR	CONF	TAILS	MODEL	CA.EF	TREFF	HLEFF	BRLEFF	CATPC	BPPC	EFFDESC1	EFFDESC2
1	01409A	2	40	1	95	1	1	.	.	.	.	.	.	.	.
2	01409B	2	6	1	70	1	1	.	.	.	.	.	.	.	.
3	01415A	2	29.9	1	80	1	1	.	1	1	.	35	39	PREV.HZBYR	MOD.CATBYR
4	01415B	2	29.8	1	90	1	1	.	1	1	.	29	33	PREVHZBYR	MOD.CATBYR
5	02599A	2	49	1	78	2	1	.	.	.	.	.	.	.	.
6	03804A	2	5.6	1	90	2	1	0	1	.	1	.	.	.	.
7	03804B	2	5.6	1	90	2	1	0	1	.	1	.	.	.	.
8	03804C	2	5.6	1	90	2	1	0	1	.	1	.	.	.	.
9	04107A	2	0	.	90	1	1	.	.	.	.	78	93	EXCL.BUYER	VOLINC3.8
10	04107B	2	0	.	90	1	1	.	.	.	.	78	83	EXCL.BUYER	VOLINC3.8
11	07123A	2	0	.	80	2	1	.	.	.	.	.	.	.	.
12	07131A	2	5.1	1	73	1	1	.	1	.	1	.	.	PRETST.BYR	12.7AT87
13	09629A	2	0	.	70	1	1	.	.	.	.	25	45	.	.
14	09629B	2	0	.	70	1	1	.	.	.	.	25	45	.	.
15	09629C	2	0	.	70	1	1	.	.	.	.	34	69	.	.
16	10906A	2	9	0	70	1	1	.	1	2	.	.	.	.	.
17	10906B	2	9	0	70	1	1	.	1	2	.	.	.	.	.
18	17602A	2	15	0	85	2	1	.	2	.	1	.	.	.	.
19	18807A	2	0	.	67	2	1	.	.	2	.	.	77	.	.
20	18901A	2	3.2	0	55	2	1	.	0	0	.	49	56	.	.
21	20704A	2	0.41	0	80	2	3	.	.	.	.	.	.	.	.
22	20720A	2	0	.	80	1	1	.	.	.	.	.	.	.	.
23	20720B	2	0	.	80	1	1	.	.	.	.	.	.	.	.
24	20788A	2	10	1	50	2	1	.	1	.	.	22	34	.	.
25	20788B	2	3	0	62	2	1	.	4	.	1	25	28	.	.
26	20788C	2	5.3	1	50	2	1	.	1	.	1	26	29	.	.
27	20788D	2	7.3	0	96	2	1	.	1	.	2	24	26	.	.
28	20788E	2	10.4	1	77	2	2	.	.	.	2	28	29	.	.
29	21504A	2	11	1	81	1	1	1	.	.	.	.	.	.	.
30	21504B	2	11	1	81	1	1	1	.	.	.	.	.	.	.
31	21504C	2	11	1	81	1	1	1	.	.	.	.	.	.	.
32	33811A	2	3.3	1	62	1	3	1	.	.	.	60	60	.	.
33	34009A	2	13.5	1	93	1	3	1	1	2	1	53	60	.	.
34	34009B	2	2.6	0	50	2	3	.	4	4	1	53	56	.	.
35	34120A	2	8.5	1	78.5	2	3	.	.	.	.	.	.	.	.

OBS	STUDY	CTYPE	PANELNO	PREPOST	PERIOD	CATVOL	RRVOL	CONTRIAL	CUMPPT
1	01409A								
2	01409B								
3	01415A	3	1	PRE	213	499.3	46.8	.	.
4	01415A	3	1	PRE	217	440.1	53.7	.	.
5	01415A	3	1	PRE	221	332.8	34.7	.	.
6	01415A	3	1	PRE	225	358.4	46.8	.	.
7	01415A	3	1	PRE	229	228.4	24.2	.	.
8	01415A	3	1	PRE	233	236.6	46.2	.	.
9	01415A	3	1	PRE	237	200.5	26.0	.	.
10	01415A	3	1	PRE	241	181.3	29.5	.	.
11	01415A	3	1	PRE	245	263.1	30.5	.	.
12	01415A	3	1	PRE	249	232.2	31.2	.	.
13	01415A	3	1	PRE	253	258.2	37.9	.	.
14	01415A	3	1	PRE	257	349.5	36.4	.	.
15	01415A	3	1	PRE	261	457.1	72.2	.	.
16	01415A	3	1	TEST	265	516.3	88.7	3.5	6.3
17	01415A	3	1	TEST	269	501.0	63.9	6.3	12.1
18	01415A	3	1	TEST	273	309.1	69.4	8.7	21.3
19	01415A	3	1	TEST	277	404.4	43.3	10.1	24.7
20	01415A	3	1	TEST	281	336.7	41.6	11.5	24.5
21	01415A	3	1	TEST	285	284.9	31.6	12.5	26.1
22	01415A	3	1	TEST	289	255.9	40.7	13.3	27.6
23	01415A	3	2	PRE	213	400.6	65.8	.	.
24	01415A	3	2	PRE	217	395.4	49.5	.	.
25	01415A	3	2	PRE	221	279.9	52.6	.	.
26	01415A	3	2	PRE	225	361.5	45.4	.	.
27	01415A	3	2	PRE	229	227.6	32.3	.	.
28	01415A	3	2	PRE	233	178.4	15.6	.	.
29	01415A	3	2	PRE	237	185.4	12.5	.	.
30	01415A	3	2	PRE	241	205.3	34.4	.	.
31	01415A	3	2	PRE	245	235.4	25.0	.	.
32	01415A	3	2	PRE	249	263.9	15.6	.	.
33	01415A	3	2	PRE	253	290.9	21.9	.	.
34	01415A	3	2	PRE	257	426.1	26.0	.	.
35	01415A	3	2	PRE	261	353.5	81.0	.	.
36	01415A	3	2	TEST	265	506.2	63.8	2.6	3.9
37	01415A	3	2	TEST	269	547.2	58.3	4.6	17.0
38	01415A	3	2	TEST	273	346.9	62.6	7.0	16.9
39	01415A	3	2	TEST	277	335.2	27.6	8.0	18.3
40	01415A	3	2	TEST	281	287.4	42.3	9.3	23.2
41	01415A	3	2	TEST	285	299.9	40.7	10.6	25.0
42	01415A	3	2	TEST	289	268.7	14.1	11.1	24.8
43	01415B	3	1	PRE	213	657.9	75.8	.	.
44	01415B	3	1	PRE	217	746.9	67.0	.	.
45	01415B	3	1	PRE	221	377.8	55.0	.	.
46	01415B	3	1	PRE	225	429.1	42.4	.	.
47	01415B	3	1	PRE	229	312.1	30.6	.	.
48	01415B	3	1	PRE	233	234.4	19.8	.	.
49	01415B	3	1	PRE	237	177.5	3.2	.	.
50	01415B	3	1	PRE	241	219.7	15.3	.	.
51	01415B	3	1	PRE	245	234.8	30.9	.	.
52	01415B	3	1	PRE	249	192.2	13.3	.	.
53	01415B	3	1	PRE	253	422.5	24.5	.	.
54	01415B	3	1	PRE	257	303.8	42.7	.	.
55	01415B	3	1	PRE	261	716.3	79.1	.	.
56	01415B	3	1	TEST	265	925.6	42.4	1.8	7.1

OBS	STUDY	CTYPE	CAVELNO	PREPOST	PERIOD	CATVOL	PRVOL	CUMTRIAL	CUMPPT
57	01415B	3	1	TEST	269	440.8	25.1	3.0	4.2
58	01415B	3	1	TEST	273	451.5	34.6	4.3	17.7
59	01415B	3	1	TEST	277	626.8	60.0	6.0	22.9
60	01415B	3	1	TEST	281	363.0	27.6	6.5	26.9
61	01415B	3	1	TEST	285	231.2	23.6	7.3	25.9
62	01415B	3	1	TEST	289	148.3	3.2	7.4	25.4
63	01415B	3	2	PRE	213	763.5	82.1	.	.
64	01415B	3	2	PRE	217	816.7	60.5	.	.
65	01415B	3	2	PRE	221	474.2	44.4	.	.
66	01415B	3	2	PRE	225	491.7	22.6	.	.
67	01415B	3	2	PRE	229	334.3	20.9	.	.
68	01415B	3	2	PRE	233	217.5	32.3	.	.
69	01415B	3	2	PRE	237	240.4	15.1	.	.
70	01415B	3	2	PRE	241	301.2	28.8	.	.
71	01415B	3	2	PRE	245	745.3	20.2	.	.
72	01415B	3	2	PRE	249	283.3	19.1	.	.
73	01415B	3	2	PRE	253	447.6	46.9	.	.
74	01415B	3	2	PRE	257	391.9	55.7	.	.
75	01415B	3	2	PRE	261	703.4	54.4	.	.
76	01415B	3	2	TEST	265	1013.5	46.4	2.3	0.0
77	01415B	3	2	TEST	269	754.9	35.4	3.9	8.6
78	01415B	3	2	TEST	273	540.6	36.1	5.3	12.5
79	01415B	3	2	TEST	277	589.5	52.2	7.3	16.7
80	01415B	3	2	TEST	281	290.4	14.5	7.7	18.6
81	01415B	3	2	TEST	285	277.3	12.7	8.3	18.7
82	01415B	3	2	TEST	289	234.1	11.0	8.5	22.1
83	02599A	3	1	PRE	110	3725.5	69.9	.	.
84	02599A	3	1	PRE	114	3399.5	63.6	.	.
85	02599A	3	1	PRE	118	3502.1	56.3	.	.
86	02599A	3	1	PRE	122	3707.5	68.1	.	.
87	02599A	3	1	PRE	126	3336.4	84.7	.	.
88	02599A	3	1	PRE	130	3578.0	109.2	.	.
89	02599A	3	1	PRE	134	2937.2	74.9	.	.
90	02599A	3	1	PRE	138	3314.2	59.3	.	.
91	02599A	3	1	PRE	142	3918.2	65.8	.	.
92	02599A	3	1	PRE	146	3595.6	63.4	.	.
93	02599A	3	1	PRE	150	3518.7	57.5	.	.
94	02599A	3	1	PRE	154	3925.4	72.0	.	.
95	02599A	3	1	PRE	158	3987.2	77.3	.	.
96	02599A	3	1	TEST	162	3721.7	90.6	.	.
97	02599A	3	1	TEST	166	3636.4	84.1	.	.
98	02599A	3	1	TEST	170	3603.5	110.9	.	.
99	02599A	3	1	TEST	174	3677.9	97.6	.	.
100	02599A	3	1	TEST	178	3566.4	69.6	.	.
101	02599A	3	1	TEST	182	3471.7	39.2	.	.
102	02599A	3	1	TEST	186	3312.3	43.7	.	.
103	02599A	3	1	TEST	190	3207.0	49.6	.	.
104	02599A	3	1	TEST	194	3599.6	67.0	.	.
105	02599A	3	1	TEST	198	3685.9	67.6	.	.
106	02599A	3	1	TEST	202	3678.5	68.4	.	.
107	02599A	3	1	TEST	206	3359.2	89.7	.	.
108	02599A	3	1	TEST	210	3321.5	110.3	.	.
109	02599A	3	2	PRE	110	4409.0	108.4	.	.
110	02599A	3	2	PRE	114	3701.3	118.4	.	.
111	02599A	3	2	PRE	118	3799.8	99.7	.	.
112	02599A	3	2	PRE	122	4071.8	83.7	.	.

OBS	STUDY	CTYPE	PANELNO	PREPOST	PERIOD	FATVOL	PRVOL	CUMTRIAL	CUMRPT
113	02599A	3	2	PRE	126	4080.5	97.2	.	.
114	02599A	3	2	PRE	130	4055.9	56.8	.	.
115	02599A	3	2	PRE	134	3052.3	48.3	.	.
116	02599A	3	2	PRE	138	3375.4	71.4	.	.
117	02599A	3	2	PRE	142	4149.5	70.8	.	.
118	02599A	3	2	PRE	146	3939.0	85.5	.	.
119	02599A	3	2	PRE	150	3922.0	73.0	.	.
120	02599A	3	2	PRE	154	4351.2	92.3	.	.
121	02599A	3	2	PRE	158	4465.9	112.5	.	.
122	02599A	3	2	TEST	162	4274.4	99.5	.	.
123	02599A	3	2	TEST	166	3777.7	134.0	.	.
124	02599A	3	2	TEST	170	3980.0	109.6	.	.
125	02599A	3	2	TEST	174	4015.2	95.4	.	.
126	02599A	3	2	TEST	178	3998.2	92.3	.	.
127	02599A	3	2	TEST	182	3929.2	97.3	.	.
128	02599A	3	2	TEST	186	3755.7	94.8	.	.
129	02599A	3	2	TEST	190	3273.0	75.8	.	.
130	02599A	3	2	TEST	194	3539.9	103.3	.	.
131	02599A	3	2	TEST	198	4075.7	71.1	.	.
132	02599A	3	2	TEST	202	4237.4	98.9	.	.
133	02599A	3	2	TEST	206	3915.8	179.1	.	.
134	02599A	3	2	TEST	210	3768.2	155.9	.	.
135	03804A	3	1	PRE	250	375.6	150.0	.	.
136	03804A	3	1	PRE	254	248.7	98.8	.	.
137	03804A	3	1	PRE	258	227.0	77.7	.	.
138	03804A	3	1	TEST	262	289.5	105.2	.	.
139	03804A	3	1	TEST	266	293.3	101.3	.	.
140	03804A	3	1	TEST	270	150.3	53.5	.	.
141	03804A	3	1	TEST	274	153.9	51.9	.	.
142	03804A	3	1	TEST	278	165.9	58.3	.	.
143	03804A	3	1	TEST	282	169.5	54.6	.	.
144	03804A	3	1	TEST	286	166.8	61.4	.	.
145	03804A	3	1	TEST	290	185.0	67.0	.	.
146	03804A	3	1	TEST	294	196.6	79.7	.	.
147	03804A	3	2	PRE	250	377.8	132.0	.	.
148	03804A	3	2	PRE	254	229.4	94.1	.	.
149	03804A	3	2	PRE	258	243.4	89.9	.	.
150	03804A	3	2	TEST	262	302.5	104.1	.	.
151	03804A	3	2	TEST	266	290.5	97.8	.	.
152	03804A	3	2	TEST	270	157.9	49.7	.	.
153	03804A	3	2	TEST	274	167.9	55.3	.	.
154	03804A	3	2	TEST	278	157.9	55.8	.	.
155	03804A	3	2	TEST	282	165.0	55.6	.	.
156	03804A	3	2	TEST	286	173.4	56.3	.	.
157	03804A	3	2	TEST	290	187.4	64.6	.	.
158	03804A	3	2	TEST	294	202.9	82.2	.	.
159	03804B	3	1	PRE	250	330.1	136.0	.	.
160	03804B	3	1	PRE	254	222.3	104.8	.	.
161	03804B	3	1	PRE	258	210.0	89.6	.	.
162	03804B	3	1	TEST	262	256.6	110.0	.	.
163	03804B	3	1	TEST	266	249.9	108.7	.	.
164	03804B	3	1	TEST	270	133.0	53.5	.	.
165	03804B	3	1	TEST	274	124.6	49.6	.	.
166	03804B	3	1	TEST	278	131.6	43.3	.	.
167	03804B	3	1	TEST	282	136.7	55.9	.	.
168	03804B	3	1	TEST	286	154.9	63.0	.	.

OBS	STUDY	CTYPE	PANELNO	PREPOST	PERIOD	CATVOL	PRVOL	CUMTRIAL	CUMPPT
169	03804B	3	1	TEST	290	162.8	87.6	.	.
170	03804B	3	1	TEST	294	154.9	83.4	.	.
171	03804B	3	2	PRE	250	321.3	148.5	.	.
172	03804B	3	2	PRE	254	227.1	105.0	.	.
173	03804B	3	2	PRE	258	227.9	94.0	.	.
174	03804B	3	2	TEST	262	253.0	110.6	.	.
175	03804B	3	2	TEST	266	265.1	108.0	.	.
176	03804B	3	2	TEST	270	132.4	54.9	.	.
177	03804B	3	2	TEST	274	120.8	52.2	.	.
178	03804B	3	2	TEST	278	129.9	54.6	.	.
179	03804B	3	2	TEST	282	148.0	58.5	.	.
180	03804B	3	2	TEST	286	159.0	64.2	.	.
181	03804B	3	2	TEST	290	157.7	79.1	.	.
182	03804B	3	2	TEST	294	167.8	75.3	.	.
183	03804C	3	1	PRE	250	331.9	162.7	.	.
184	03804C	3	1	PRE	254	209.7	100.5	.	.
185	03804C	3	1	PRE	258	181.4	85.9	.	.
186	03804C	3	1	TEST	262	246.7	117.2	.	.
187	03804C	3	1	TEST	266	218.6	110.4	.	.
188	03804C	3	1	TEST	270	115.6	52.6	.	.
189	03804C	3	1	TEST	274	126.5	63.2	.	.
190	03804C	3	1	TEST	278	135.4	67.7	.	.
191	03804C	3	1	TEST	282	129.9	65.7	.	.
192	03804C	3	1	TEST	286	139.7	70.9	.	.
193	03804C	3	1	TEST	290	150.5	74.9	.	.
194	03804C	3	1	TEST	294	170.6	86.7	.	.
195	03804C	3	2	PRE	250	293.7	113.9	.	.
196	03804C	3	2	PRE	254	184.3	83.0	.	.
197	03804C	3	2	PRE	258	177.7	73.5	.	.
198	03804C	3	2	TEST	262	203.5	76.4	.	.
199	03804C	3	2	TEST	266	219.6	84.3	.	.
200	03804C	3	2	TEST	270	109.2	42.3	.	.
201	03804C	3	2	TEST	274	119.7	54.8	.	.
202	03804C	3	2	TEST	278	125.0	51.8	.	.
203	03804C	3	2	TEST	282	114.4	45.4	.	.
204	03804C	3	2	TEST	286	114.5	47.9	.	.
205	03804C	3	2	TEST	290	112.2	46.2	.	.
206	03804C	3	2	TEST	294	156.9	64.3	.	.
207	04107A	3	1	PRE	250	55.2	26.5	.	.
208	04107A	3	1	PRE	254	53.1	33.2	.	.
209	04107A	3	1	TEST	258	44.6	25.3	7.6	8.7
210	04107A	3	1	TEST	262	45.9	30.1	14.1	13.5
211	04107A	3	1	TEST	266	26.3	17.9	18.4	17.7
212	04107A	3	1	TEST	270	51.5	29.6	22.5	22.2
213	04107A	3	1	TEST	274	31.2	20.4	25.5	26.8
214	04107A	3	1	TEST	278	27.7	15.6	28	30.4
215	04107A	3	1	TEST	282	50.3	25.8	31.2	33.5
216	04107A	3	1	TEST	286	65.1	37.9	36.6	36.4
217	04107A	3	1	TEST	290	40.3	32.2	40.4	40
218	04107A	3	1	TEST	294	53.4	36.6	43.6	43.9
219	04107A	3	1	TEST	298	74.3	41.8	47	47.5
220	04107A	3	1	TEST	302	59.5	42.6	50	50.2
221	04107A	3	1	TEST	306	40.4	27.6	52	53.3
222	04107A	3	1	TEST	310	32.6	22.7	53.7	54.0
223	04107A	3	1	TEST	314	41.0	29.7	54.8	57.3
224	04107A	3	2	PRE	250	60.5	31.2	.	.

OBS	STUDY	CTYPE	PAN LNO	PREPOST	PERIOD	CATVOL	BRVOL	CUMTRIAL	CUMPPT
225	04107A	3	2	PRE	254	53.1	35.4	.	.
226	04107A	3	2	TEST	258	39.4	23.8	7.2	5.0
227	04107A	3	2	TEST	262	44	23.1	13.9	11.3
228	04107A	3	2	TEST	266	39.5	23.6	18.7	18.9
229	04107A	3	2	TEST	270	43.6	25.5	23.3	22.3
230	04107A	3	2	TEST	274	31.4	20.8	26.6	27.2
231	04107A	3	2	TEST	278	26.7	18.3	30	29.8
232	04107A	3	2	TEST	282	56.6	34.6	34.5	33.9
233	04107A	3	2	TEST	286	61.2	41.9	38.5	39.4
234	04107A	3	2	TEST	290	62.8	35.8	41.5	43.8
235	04107A	3	2	TEST	294	44	27.8	44.6	45.4
236	04107A	3	2	TEST	298	80.3	51.3	49.2	48.0
237	04107A	3	2	TEST	302	59.4	48.0	52.5	51.6
238	04107A	3	2	TEST	306	41.2	30.3	55.1	54.3
239	04107A	3	2	TEST	310	27.2	17.8	56.5	54.8
240	04107A	3	2	TEST	314	38.7	33.2	57.6	56.9
241	04107B								
242	07123A	3	1	PRE	182	3443	117.4	.	.
243	07123A	3	1	PRE	186	3361	124.6	.	.
244	07123A	3	1	PRE	190	3484	77.7	.	.
245	07123A	3	1	PRE	194	3349	72.2	.	.
246	07123A	3	1	PRE	198	3714	92.1	.	.
247	07123A	3	1	PRE	202	3958	93.9	.	.
248	07123A	3	1	PRE	206	3920	112.0	.	.
249	07123A	3	1	PRE	210	3915	94.8	.	.
250	07123A	3	1	PRE	214	4095	78.6	.	.
251	07123A	3	1	PRE	218	3783	77.7	.	.
252	07123A	3	1	PRE	222	3908	84.9	.	.
253	07123A	3	1	PRE	226	3807	85.8	.	.
254	07123A	3	1	PRE	230	3985	186.5	.	.
255	07123A	3	1	TEST	234	3569	69.5	2.3	10.0
256	07123A	3	1	TEST	238	3524	59.6	3.0	25.9
257	07123A	3	1	TEST	242	3179	45.1	3.8	35.3
258	07123A	3	1	TEST	246	3708	46.0	4.9	30.2
259	07123A	3	2	PRE	182	3801	160.6	.	.
260	07123A	3	2	PRE	186	3726	93.5	.	.
261	07123A	3	2	PRE	190	3887	79.8	.	.
262	07123A	3	2	PRE	194	3637	63.3	.	.
263	07123A	3	2	PRE	198	4380	84.1	.	.
264	07123A	3	2	PRE	202	4668	108.1	.	.
265	07123A	3	2	PRE	206	4396	76.5	.	.
266	07123A	3	2	PRE	210	4493	86.0	.	.
267	07123A	3	2	PRE	214	4524	58.1	.	.
268	07123A	3	2	PRE	218	4167	57.6	.	.
269	07123A	3	2	PRE	222	4397	47.2	.	.
270	07123A	3	2	PRE	226	4096	88.8	.	.
271	07123A	3	2	PRE	230	4275	79.4	.	.
272	07123A	3	2	TEST	234	4066	49.1	2.2	5.3
273	07123A	3	2	TEST	238	3924	30.2	3.1	19.2
274	07123A	3	2	TEST	242	3479	29.3	3.8	21.9
275	07123A	3	2	TEST	246	3842	37.8	4.5	31.6
276	07131A	3	1	PRE	178	217.8	114.5	.	.
277	07131A	3	1	PRE	182	164.5	78.8	.	.
278	07131A	3	1	PRE	186	115.3	68.3	.	.
279	07131A	3	1	PRE	190	104.9	64.5	.	.
280	07131A	3	1	PRE	194	151.9	103.2	.	.

OBS	STUDY	CTYPE	PANELNO	PREPOST	PERIOD	CATVOL	DRVOL	CUMTRIAL	CUMRPT
281	07131A	3	1	PRE	198	139.1	90.4	.	
282	07131A	3	1	PRE	202	144.4	92.3	.	.
283	07131A	3	1	PRE	206	180.2	113.8	.	.
284	07131A	3	1	PRE	210	222.2	151.5	.	.
285	07131A	3	1	PRE	214	323.3	162.1	.	.
286	07131A	3	1	PRE	218	327.5	185.4	.	.
287	07131A	3	1	PRE	222	264.6	189.7	.	.
288	07131A	3	1	PRE	226	267.1	189.7	.	.
289	07131A	3	1	TEST	230	195.5	141.9	.	.
290	07131A	3	1	TEST	234	248.2	135.9	.	.
291	07131A	3	1	TEST	238	108.0	82.3	.	.
292	07131A	3	1	TEST	242	87.9	58.3	.	.
293	07131A	3	1	TEST	246	109.2	76.6	.	.
294	07131A	3	1	TEST	250	107.0	83.7	.	.
295	07131A	3	1	TEST	254	149.4	91.3	.	.
296	07131A	3	2	PRE	178	307.6	197.7	.	.
297	07131A	3	2	PRE	182	199.5	134.2	.	.
298	07131A	3	2	PRE	186	184.0	107.0	.	.
299	07131A	3	2	PRE	190	136.2	70.8	.	.
300	07131A	3	2	PRE	194	137.8	117.7	.	.
301	07131A	3	2	PRE	198	171.4	131.1	.	.
302	07131A	3	2	PRE	202	227.5	145.6	.	.
303	07131A	3	2	PRE	206	209.8	155.6	.	.
304	07131A	3	2	PRE	210	277.5	177.0	.	.
305	07131A	3	2	PRE	214	355.8	219.5	.	.
306	07131A	3	2	PRE	218	367.4	213.0	.	.
307	07131A	3	2	PRE	222	311.0	197.0	.	.
308	07131A	3	2	PRE	226	307.0	213.3	.	.
309	07131A	3	2	TEST	230	240.1	159.7	.	.
310	07131A	3	2	TEST	234	191.3	146.7	.	.
311	07131A	3	2	TEST	238	136.7	101.9	.	.
312	07131A	3	2	TEST	242	91.6	59.7	.	.
313	07131A	3	2	TEST	246	123.1	95.1	.	.
314	07131A	3	2	TEST	250	141.7	82.3	.	.
315	07131A	3	2	TEST	254	136.0	103.6	.	.
316	09629A	3	1	TEST	254	.	.	5	.
317	09629A	3	1	TEST	258	.	.	5.5	.
318	09629A	3	1	TEST	262	.	.	9	.
319	09629A	3	1	TEST	266	.	.	10	.
320	09629A	3	1	TEST	270	.	.	10.5	.
321	09629A	3	1	TEST	274	.	.	11	.
322	09629A	3	1	TEST	278	.	.	12	.
323	09629A	3	1	TEST	282	.	.	13.5	.
324	09629A	3	1	TEST	286	.	.	14	.
325	09629A	3	1	TEST	290	.	.	15	.
326	09629A	3	1	TEST	294	.	.	15	.
327	09629A	3	1	TEST	298	.	.	16	.
328	09629A	3	1	TEST	302	.	.	16.5	.
329	09629A	3	2	TEST	254	.	.	5	.
330	09629A	3	2	TEST	258	.	.	7	.
331	09629A	3	2	TEST	262	.	.	10	.
332	09629A	3	2	TEST	266	.	.	11	.
333	09629A	3	2	TEST	270	.	.	12.5	.
334	09629A	3	2	TEST	274	.	.	13	.
335	09629A	3	2	TEST	278	.	.	14	.
336	09629A	3	2	TEST	282	.	.	16.5	.

OBS	STUDY	CTYPE	RANGLND	PREPOST	PERIOD	CAVOL	PRVOL	CUMTRIAL	CUMPPT
337	09629A	3	2	TEST	286	.	.	19	.
338	09629A	3	2	TEST	290	.	.	20	.
339	09629A	3	2	TEST	294	.	.	20.5	.
340	09629A	3	2	TEST	298	.	.	21	.
341	09629A	3	2	TEST	302	.	.	21	.
342	09629B								
343	09629C	3	1	TEST	254	.	.	1.5	.
344	09629C	3	1	TEST	258	.	.	1.5	.
345	09629C	3	1	TEST	262	.	.	2.5	.
346	09629C	3	1	TEST	265	.	.	2.5	.
347	09629C	3	1	TEST	270	.	.	3.5	.
348	09629C	3	1	TEST	274	.	.	4	.
349	09629C	3	1	TEST	278	.	.	4	.
350	09629C	3	1	TEST	282	.	.	4.5	.
351	09629C	3	1	TEST	285	.	.	4.5	.
352	09629C	3	1	TEST	290	.	.	4.5	.
353	09629C	3	1	TEST	294	.	.	4.5	.
354	09629C	3	1	TEST	298	.	.	5	.
355	09629C	3	1	TEST	302	.	.	5	.
356	09629C	3	2	TEST	254	.	.	2	.
357	09629C	3	2	TEST	258	.	.	2	.
358	09629C	3	2	TEST	262	.	.	3	.
359	09629C	3	2	TEST	266	.	.	3	.
360	09629C	3	2	TEST	270	.	.	5	.
361	09629C	3	2	TEST	274	.	.	5.5	.
362	09629C	3	2	TEST	278	.	.	5.5	.
363	09629C	3	2	TEST	282	.	.	6	.
364	09629C	3	2	TEST	286	.	.	6	.
365	09629C	3	2	TEST	290	.	.	6.5	.
366	09629C	3	2	TEST	294	.	.	7	.
367	09629C	3	2	TEST	298	.	.	8	.
368	09629C	3	2	TEST	302	.	.	8.5	.
369	10906A	3	1	PRE	206	109.4	18.6	.	.
370	10906A	3	1	PRE	210	105.0	17.0	.	.
371	10906A	3	1	PRE	214	88.0	21.1	.	.
372	10906A	3	1	PRE	218	87.8	17.7	.	.
373	10906A	3	1	PRE	222	89.0	18.7	.	.
374	10906A	3	1	PRE	226	93.1	21.2	.	.
375	10906A	3	1	PRE	230	95.1	18.0	.	.
376	10906A	3	1	PRE	234	93.0	19.6	.	.
377	10906A	3	1	PRE	238	86.1	20.5	.	.
378	10906A	3	1	PRE	242	86.2	14.2	.	.
379	10906A	3	1	TEST	246	94.8	25.2	.	.
380	10906A	3	1	TEST	250	88.3	23.8	.	.
381	10906A	3	1	TEST	254	87.8	21.1	.	.
382	10906A	3	1	TEST	258	83.1	22.2	.	.
383	10906A	3	1	TEST	262	87.5	18.1	.	.
384	10906A	3	1	TEST	266	75.0	17.5	.	.
385	10906A	3	1	TEST	270	83.3	15.9	.	.
386	10906A	3	1	TEST	274	76.0	13.4	.	.
387	10906A	3	1	TEST	278	84.3	23.4	.	.
388	10906A	3	1	TEST	282	83.6	16.1	.	.
389	10906A	3	2	PRE	206	97.3	19.0	.	.
390	10906A	3	2	PRE	210	97.7	23.8	.	.
391	10906A	3	2	PRE	214	114.3	23.8	.	.
392	10906A	3	2	PRE	218	106.7	24.8	.	.

OBS	STUDY	CTYPE	PANLINO	PREPOST	PERIOD	CATVOL	BRVOL	CUMTRIAL	CUMRPT
393	10906A	3	2	PRE	222	101.7	19.3	.	.
394	10906A	3	2	PRE	226	102.9	19.8	.	.
395	10906A	3	2	PRE	230	100.2	20.4	.	.
396	10906A	3	2	PRE	234	98.7	20.2	.	.
397	10906A	3	2	PRE	238	104.8	23.5	.	.
398	10906A	3	2	PRE	242	103.8	20.7	.	.
399	10906A	3	2	TEST	246	111.5	26.0	.	.
400	10906A	3	2	TEST	250	106.9	27.5	.	.
401	10906A	3	2	TEST	254	107.7	22.2	.	.
402	10906A	3	2	TEST	258	100.8	24.9	.	.
403	10906A	3	2	TEST	262	107.8	22.8	.	.
404	10906A	3	2	TEST	266	89.8	24.8	.	.
405	10906A	3	2	TEST	270	91.8	15.0	.	.
406	10906A	3	2	TEST	274	97.8	24.4	.	.
407	10906A	3	2	TEST	278	99.8	22.2	.	.
408	10906A	3	2	TEST	282	110.5	23.9	.	.
409	10906B								
410	17602A	3	1	PRE	163	16.8	1.8	.	.
411	17602A	3	1	PRE	167	24.0	3.5	.	.
412	17602A	3	1	PRE	171	17.3	3.9	.	.
413	17602A	3	1	PRE	175	18.7	3.2	.	.
414	17602A	3	1	PRE	179	17.0	3.1	.	.
415	17602A	3	1	PRE	183	13.0	2.7	.	.
416	17602A	3	1	PRE	187	8.4	2.3	.	.
417	17602A	3	1	PRE	191	7.9	2.6	.	.
418	17602A	3	1	PRE	195	7.7	1.8	.	.
419	17602A	3	1	PRE	199	14.8	2.1	.	.
420	17602A	3	1	PRE	203	17.8	2.1	.	.
421	17602A	3	1	PRE	207	30.4	3.9	.	.
422	17602A	3	1	PRE	211	25.7	5.1	.	.
423	17602A	3	1	TEST	215	27.2	4.4	3.5	8.1
424	17602A	3	1	TEST	219	29.2	4.3	6.7	12.5
425	17602A	3	1	TEST	223	25.0	4.1	9.2	15.3
426	17602A	3	1	TEST	227	20.7	3.2	10.9	17.9
427	17602A	3	1	TEST	231	20.3	3.0	12.0	23.4
428	17602A	3	1	TEST	235	13.1	3.0	13.4	25.2
429	17602A	3	2	PRE	163	18.3	2.1	.	.
430	17602A	3	2	PRE	167	24.2	3.7	.	.
431	17602A	3	2	PRE	171	16.1	1.9	.	.
432	17602A	3	2	PRE	175	20.9	2.2	.	.
433	17602A	3	2	PRE	179	17.1	1.4	.	.
434	17602A	3	2	PRE	183	14.2	2.5	.	.
435	17602A	3	2	PRE	187	7.6	1.0	.	.
436	17602A	3	2	PRE	191	6.3	1.3	.	.
437	17602A	3	2	PRE	195	7.4	1.8	.	.
438	17602A	3	2	PRE	199	13.2	2.0	.	.
439	17602A	3	2	PRE	203	24.0	3.1	.	.
440	17602A	3	2	PRE	207	24.3	4.8	.	.
441	17602A	3	2	PRE	211	24.3	2.8	.	.
442	17602A	3	2	TEST	215	28.1	4.8	3.9	5.1
443	17602A	3	2	TEST	219	27.4	4.3	6.3	20.6
444	17602A	3	2	TEST	223	30.0	4.6	8.3	24.1
445	17602A	3	2	TEST	227	23.6	4.9	10.6	25.5
446	17602A	3	2	TEST	231	19.3	3.4	11.8	27.1
447	17602A	3	2	TEST	235	16.0	3.8	13.1	27.5
448	18907A								

OBS	STUDY	CTYPE	PANELNO	PREPOST	PERIOD	CATVOL	PRVOL	CUMTRIAL	CUMPPT
449	18901A	3	1	PRE	163	214.9	73.1	.	.
450	18901A	3	1	PRE	167	205.9	53.5	.	.
451	18901A	3	1	PRE	171	284.4	109.3	.	.
452	18901A	3	1	PRE	175	318.6	166.7	.	.
453	18901A	3	1	PRE	179	300.5	180.2	.	.
454	18901A	3	1	PRE	183	266.0	128.1	.	.
455	18901A	3	1	PRE	187	310.0	172.9	.	.
456	18901A	3	1	PRE	191	235.1	144.7	.	.
457	18901A	3	1	PRE	195	390.2	210.8	.	.
458	18901A	3	1	PRE	199	273.2	121.0	.	.
459	18901A	3	1	PRE	203	301.6	127.8	.	.
460	18901A	3	1	TEST	207	217.2	75.5	2.9	4.2
461	18901A	3	1	TEST	211	206.4	59.7	4.4	11.1
462	18901A	3	1	TEST	215	226.4	56.5	5.7	21.3
463	18901A	3	1	TEST	219	223.7	44.5	6.4	28.8
464	18901A	3	1	TEST	223	231.0	59.4	7.7	30.2
465	18901A	3	1	TEST	227	371.4	225.9	12.0	32.7
466	18901A	3	1	TEST	231	297.7	150.9	15.3	28.0
467	18901A	3	2	PRE	163	214.9	78.0	.	.
468	18901A	3	2	PRE	167	205.9	72.7	.	.
469	18901A	3	2	PRE	171	284.4	113.7	.	.
470	18901A	3	2	PRE	175	318.6	136.9	.	.
471	18901A	3	2	PRE	179	300.5	126.4	.	.
472	18901A	3	2	PRE	183	266.0	143.4	.	.
473	18901A	3	2	PRE	187	310.4	131.4	.	.
474	18901A	3	2	PRE	191	235.1	105.2	.	.
475	18901A	3	2	PRE	195	390.2	174.7	.	.
476	18901A	3	2	PRE	199	273.2	96.0	.	.
477	18901A	3	2	PRE	203	301.6	114.6	.	.
478	18901A	3	2	TEST	207	217.2	70.0	2.5	4.5
479	18901A	3	2	TEST	211	206.4	64.9	4.7	14.6
480	18901A	3	2	TEST	215	226.4	87.2	7.1	16.1
481	18901A	3	2	TEST	219	223.7	49.7	8.2	22.5
482	18901A	3	2	TEST	223	231.0	67.0	8.9	27.3
483	18901A	3	2	TEST	227	371.4	165.5	12.7	26.4
484	18901A	3	2	TEST	231	297.7	128.7	14.7	28.9
485	20704A	3	1	PRE	110	100.0	8.6	.	.
486	20704A	3	1	PRE	114	93.9	7.6	.	.
487	20704A	3	1	PRE	118	101.7	8.5	.	.
488	20704A	3	1	PRE	122	102.6	8.9	.	.
489	20704A	3	1	PRE	126	109.1	8.9	.	.
490	20704A	3	1	PRE	130	129.9	11.6	.	.
491	20704A	3	1	PRE	134	134.9	9.1	.	.
492	20704A	3	1	PRE	138	133.6	11.2	.	.
493	20704A	3	1	PRE	142	163.0	10.9	.	.
494	20704A	3	1	PRE	146	140.1	13.4	.	.
495	20704A	3	1	PRE	150	135.7	13.1	.	.
496	20704A	3	1	PRE	154	125.1	9.9	.	.
497	20704A	3	1	PRE	158	124.7	9.5	.	.
498	20704A	3	1	TEST	162	102.9	11.9	.	.
499	20704A	3	1	TEST	166	94.5	9.8	.	.
500	20704A	3	1	TEST	170	114.9	9.9	.	.
501	20704A	3	1	TEST	174	119.8	7.7	.	.
502	20704A	3	1	TEST	178	107.4	8.6	.	.
503	20704A	3	1	TEST	182	117.9	8.5	.	.
504	20704A	3	1	TEST	186	108.4	11.2	.	.

OBS	STUDY	CTYPE	PANELNO	PREPOST	PERIOD	CATVOL	BRVOL	CUMTRIAL	CUMPPT
505	20704A	3	1	TEST	190	104.3	7.9	.	.
506	20704A	3	1	TEST	194	119.7	9.3	.	.
507	20704A	3	1	TEST	198	112.5	8.5	.	.
508	20704A	3	1	TEST	202	99.1	8.4	.	.
509	20704A	3	1	TEST	206	107.6	8.8	.	.
510	20704A	3	1	TEST	210	97.4	8.6	.	.
511	20704A	3	1	TEST	214	98.5	7.6	.	.
512	20704A	3	1	TEST	218	83.4	4.7	.	.
513	20704A	3	1	TEST	222	30.7	4.1	.	.
514	20704A	3	1	TEST	226	83.2	4.1	.	.
515	20704A	3	2	PRE	110	112.3	10.2	.	.
516	20704A	3	2	PRE	114	105.6	9.5	.	.
517	20704A	3	2	PRE	118	97.9	5.8	.	.
518	20704A	3	2	PRE	122	109.5	7.8	.	.
519	20704A	3	2	PRE	126	143.8	8.9	.	.
520	20704A	3	2	PRE	130	133.0	9.5	.	.
521	20704A	3	2	PRE	134	137.2	12.2	.	.
522	20704A	3	2	PRE	138	144.7	7.7	.	.
523	20704A	3	2	PRE	142	160.0	7.0	.	.
524	20704A	3	2	PRE	146	151.7	12.8	.	.
525	20704A	3	2	PRE	150	145.3	13.7	.	.
526	20704A	3	2	PRE	154	136.2	9.1	.	.
527	20704A	3	2	PRE	158	133.1	10.2	.	.
528	20704A	3	2	TEST	162	125.9	10.4	.	.
529	20704A	3	2	TEST	166	106.3	9.6	.	.
530	20704A	3	2	TEST	170	125.9	7.5	.	.
531	20704A	3	2	TEST	174	122.9	5.8	.	.
532	20704A	3	2	TEST	178	118.3	7.7	.	.
533	20704A	3	2	TEST	182	117.2	8.6	.	.
534	20704A	3	2	TEST	186	119.4	9.4	.	.
535	20704A	3	2	TEST	190	102.4	7.7	.	.
536	20704A	3	2	TEST	194	131.5	9.5	.	.
537	20704A	3	2	TEST	198	120.6	9.8	.	.
538	20704A	3	2	TEST	202	114.7	8.5	.	.
539	20704A	3	2	TEST	206	108.3	9.6	.	.
540	20704A	3	2	TEST	210	111.1	10.8	.	.
541	20704A	3	2	TEST	214	103.7	7.0	.	.
542	20704A	3	2	TEST	218	96.0	4.2	.	.
543	20704A	3	2	TEST	222	91.5	3.4	.	.
544	20704A	3	2	TEST	226	93.7	3.6	.	.
545	20720A	3	1	PRE	158	505.9	305.5	.	.
546	20720A	3	1	PRE	162	783.2	471.6	.	.
547	20720A	3	1	PRE	166	719.9	396.6	.	.
548	20720A	3	1	PRE	170	507.7	290.7	.	.
549	20720A	3	1	PRE	174	527.3	325.1	.	.
550	20720A	3	1	PRE	178	335.3	223.0	.	.
551	20720A	3	1	PRE	182	315.9	216.9	.	.
552	20720A	3	1	PRE	186	232.9	166.4	.	.
553	20720A	3	1	PRE	190	240.4	163.9	.	.
554	20720A	3	1	PRE	194	301.6	180.7	.	.
555	20720A	3	1	PRE	198	213.0	206.0	.	.
556	20720A	3	1	PRE	202	332.8	213.0	.	.
557	20720A	3	1	PRE	206	348.5	233.7	.	.
558	20720A	3	1	TEST	210	546.1	357.0	19.3	5.8
559	20720A	3	1	TEST	214	593.7	317.3	29.9	13.8
560	20720A	3	1	TEST	218	541.9	359.7	34.3	19.6

OBS	STUDY	CTYPE	PANELNO	PREPOST	PERIOD	CATVOL	DEVOL	CUMTRIAL	CUMPPT
561	20720A	3	1	TEST	222	572.3	314.5	38.4	23.5
562	20720A	3	1	TEST	226	455.5	309.1	40.7	25.5
563	20720A	3	2	PRE	158	541.6	335.6	.	.
564	20720A	3	2	PRE	162	770.9	453.4	.	.
565	20720A	3	2	PRE	166	760.9	407.0	.	.
566	20720A	3	2	PRE	170	590.7	350.2	.	.
567	20720A	3	2	PRE	174	517.5	358.7	.	.
568	20720A	3	2	PRE	178	402.1	252.1	.	.
569	20720A	3	2	PRE	182	334.5	236.9	.	.
570	20720A	3	2	PRE	186	265.1	189.4	.	.
571	20720A	3	2	PRE	190	231.5	155.1	.	.
572	20720A	3	2	PRE	194	248.7	175.9	.	.
573	20720A	3	2	PRE	198	249.2	169.7	.	.
574	20720A	3	2	PRE	202	370.9	244.2	.	.
575	20720A	3	2	PRE	206	308.3	210.8	.	.
576	20720A	3	2	TEST	210	556.3	350.2	19.0	6.0
577	20720A	3	2	TEST	214	515.1	293.9	29.2	11.6
578	20720A	3	2	TEST	218	617.3	380.6	37.4	18.7
579	20720A	3	2	TEST	222	507.6	306.1	40.9	23.1
580	20720A	3	2	TEST	226	450.7	326.6	44.1	25.7
581	20720B	3	1	PRE	158	351.9	149.5	.	.
582	20720B	3	1	PRE	162	661.7	332.5	.	.
583	20720B	3	1	PRE	166	645.4	302.9	.	.
584	20720B	3	1	PRE	170	584.4	295.5	.	.
585	20720B	3	1	PRE	174	558.7	276.2	.	.
586	20720B	3	1	PRE	178	463.0	229.8	.	.
587	20720B	3	1	PRE	182	356.6	205.3	.	.
588	20720B	3	1	PRE	186	318.9	157.7	.	.
589	20720B	3	1	PRE	190	216.2	127.3	.	.
590	20720B	3	1	PRE	194	290.4	177.0	.	.
591	20720B	3	1	PRE	198	341.5	217.6	.	.
592	20720B	3	1	PRE	202	340.3	196.5	.	.
593	20720B	3	1	PRE	206	318.1	180.8	.	.
594	20720B	3	1	TEST	210	450.2	232.2	14.8	5.1
595	20720B	3	1	TEST	214	471.8	251.7	23.6	12.4
596	20720B	3	1	TEST	218	515.0	277.8	28.6	17.2
597	20720B	3	1	TEST	222	512.0	299.1	32.5	20.6
598	20720B	3	1	TEST	226	479.8	247.7	34.8	23.6
599	20720B	3	2	PRE	158	287.1	143.5	.	.
600	20720B	3	2	PRE	162	569.3	264.4	.	.
601	20720B	3	2	PRE	166	595.5	288.5	.	.
602	20720B	3	2	PRE	170	496.4	279.3	.	.
603	20720B	3	2	PRE	174	504.4	270.2	.	.
604	20720B	3	2	PRE	178	450.3	254.7	.	.
605	20720B	3	2	PRE	182	282.7	157.5	.	.
606	20720B	3	2	PRE	186	276.4	153.9	.	.
607	20720B	3	2	PRE	190	233.5	144.0	.	.
608	20720B	3	2	PRE	194	234.2	152.8	.	.
609	20720B	3	2	PRE	198	253.7	160.2	.	.
610	20720B	3	2	PRE	202	364.4	219.1	.	.
611	20720B	3	2	PRE	206	361.9	211.0	.	.
612	20720B	3	2	TEST	210	401.8	253.4	12.9	4.4
613	20720B	3	2	TEST	214	476.5	248.9	22.3	9.9
614	20720B	3	2	TEST	218	455.3	244.0	27.0	15.4
615	20720B	3	2	TEST	222	477.2	294.8	30.9	17.1
616	20720B	3	2	TEST	226	441.7	238.6	33.2	22.3

OBS	STUDY	CTYPE	PANELID	PREPOST	PERIOD	CATVOL	PRVOL	CUMTRIAL	CUMPPT
617	20788A	3	1	PRE	110	3911	431	.	.
618	20788A	3	1	PRE	114	4425	991	.	.
619	20788A	3	1	PRE	118	4492	645	.	.
620	20788A	3	1	PRE	122	2931	589	.	.
621	20788A	3	1	PRE	126	1654	310	.	.
622	20788A	3	1	PRE	130	630	63	.	.
623	20788A	3	1	PRE	134	760	82	.	.
624	20788A	3	1	PRE	138	763	208	.	.
625	20788A	3	1	PRE	142	542	16	.	.
626	20788A	3	1	PRE	146	862	192	.	.
627	20788A	3	1	PRE	150	785	75	.	.
628	20788A	3	1	PRE	154	2971	697	.	.
629	20788A	3	1	PRE	158	3816	448	.	.
630	20788A	3	1	TEST	162	4947	907	.	.
631	20788A	3	1	TEST	166	5427	836	.	.
632	20788A	3	1	TEST	170	4875	1088	.	.
633	20788A	3	1	TEST	174	2595	518	.	.
634	20788A	3	1	TEST	178	2214	291	.	.
635	20788A	3	1	TEST	182	1436	102	.	.
636	20788A	3	1	TEST	186	722	0	.	.
637	20788A	3	2	PRE	110	3663	844	.	.
638	20788A	3	2	PRE	114	4210	965	.	.
639	20788A	3	2	PRE	118	4285	788	.	.
640	20788A	3	2	PRE	122	3308	686	.	.
641	20788A	3	2	PRE	126	1393	324	.	.
642	20788A	3	2	PRE	130	1119	309	.	.
643	20788A	3	2	PRE	134	844	211	.	.
644	20788A	3	2	PRE	138	773	196	.	.
645	20788A	3	2	PRE	142	849	45	.	.
646	20788A	3	2	PRE	146	742	113	.	.
647	20788A	3	2	PRE	150	831	151	.	.
648	20788A	3	2	PRE	154	3636	903	.	.
649	20788A	3	2	PRE	158	3442	535	.	.
650	20788A	3	2	TEST	162	4422	812	.	.
651	20788A	3	2	TEST	166	4853	890	.	.
652	20788A	3	2	TEST	170	4294	660	.	.
653	20788A	3	2	TEST	174	2526	912	.	.
654	20788A	3	2	TEST	178	1740	339	.	.
655	20788A	3	2	TEST	182	907	181	.	.
656	20788A	3	2	TEST	186	694	45	.	.
657	20788B	3	1	PRE	110	10745	3362	.	.
658	20788B	3	1	PRE	114	12605	3627	.	.
659	20788B	3	1	PRE	118	8862	3084	.	.
660	20788B	3	1	PRE	122	7131	2172	.	.
661	20788B	3	1	PRE	126	2611	551	.	.
662	20788B	3	1	PRE	130	1952	464	.	.
663	20788B	3	1	PRE	134	1550	406	.	.
664	20788B	3	1	PRE	138	1857	232	.	.
665	20788B	3	1	PRE	142	1779	361	.	.
666	20788B	3	1	PRE	146	2616	676	.	.
667	20788B	3	1	PRE	150	2777	589	.	.
668	20788B	3	1	PRE	154	3324	920	.	.
669	20788B	3	1	PRE	158	6860	1812	.	.
670	20788B	3	1	TEST	162	8969	2151	.	.
671	20788B	3	1	TEST	166	8772	2940	.	.
672	20788B	3	1	TEST	170	5422	1095	.	.

OBS	STUDY	CTYPE	PANELNO	PREPOST	PERIOD	CATVOL	BRVOL	CUMTRIAL	CUMRPT
673	20788B	3	1	TEST	174	3621	933	.	.
674	20788B	3	1	TEST	178	2126	419	.	.
675	20788B	3	1	TEST	182	1604	282	.	.
676	20788B	3	1	TEST	186	725	108	.	.
677	20788B	3	2	PRE	110	12673	3946	.	.
678	20788B	3	2	PRE	114	12623	4435	.	.
679	20788B	3	2	PRE	118	8431	3558	.	.
680	20788B	3	2	PRE	122	8223	2969	.	.
681	20788B	3	2	PRE	126	2877	1212	.	.
682	20788B	3	2	PRE	130	1746	550	.	.
683	20788B	3	2	PRE	134	2469	977	.	.
684	20788B	3	2	PRE	138	1962	669	.	.
685	20788B	3	2	PRE	142	1881	269	.	.
686	20788B	3	2	PRE	146	3065	912	.	.
687	20788B	3	2	PRE	150	3701	931	.	.
688	20788B	3	2	PRE	154	4277	815	.	.
689	20788B	3	2	PRE	158	8169	3008	.	.
690	20788B	3	2	TEST	162	9102	2658	.	.
691	20788B	3	2	TEST	166	10790	3850	.	.
692	20788B	3	2	TEST	170	5994	2066	.	.
693	20788B	3	2	TEST	174	4495	1554	.	.
694	20788B	3	2	TEST	178	2896	700	.	.
695	20788B	3	2	TEST	182	2773	712	.	.
696	20788B	3	2	TEST	186	1557	235	.	.
697	20788C	3	1	TEST	159	4432	881	.	.
698	20788C	3	1	TEST	163	6464	901	.	.
699	20788C	3	1	TEST	167	7090	994	.	.
700	20788C	3	1	TEST	171	5219	1014	.	.
701	20788C	3	1	TEST	175	5485	1313	.	.
702	20788C	3	1	TEST	179	4436	794	.	.
703	20788C	3	1	TEST	183	2870	512	.	.
704	20788C	3	1	TEST	187	2491	595	.	.
705	20788C	3	2	TEST	159	3521	597	.	.
706	20788C	3	2	TEST	163	6394	787	.	.
707	20788C	3	2	TEST	167	6200	1162	.	.
708	20788C	3	2	TEST	171	5002	1408	.	.
709	20788C	3	2	TEST	175	4293	756	.	.
710	20788C	3	2	TEST	179	4060	413	.	.
711	20788C	3	2	TEST	183	2600	243	.	.
712	20788C	3	2	TEST	187	2000	69	.	.
713	20788D	3	1	TEST	154	10559	6297	.	.
714	20788D	3	1	TEST	158	17409	9579	.	.
715	20788D	3	1	TEST	162	22851	15736	.	.
716	20788D	3	1	TEST	166	14063	8101	.	.
717	20788D	3	1	TEST	170	10262	5862	.	.
718	20788D	3	1	TEST	174	9767	5191	.	.
719	20788D	3	1	TEST	178	7217	5143	.	.
720	20788D	3	1	TEST	182	6466	4722	.	.
721	20788D	3	2	TEST	154	12500	7370	.	.
722	20788D	3	2	TEST	158	17557	10350	.	.
723	20788D	3	2	TEST	162	26433	19546	.	.
724	20788D	3	2	TEST	166	14669	9458	.	.
725	20788D	3	2	TEST	170	12113	8109	.	.
726	20788D	3	2	TEST	174	10367	7522	.	.
727	20788D	3	2	TEST	178	7207	5488	.	.
728	20788D	3	2	TEST	182	7199	5165	.	.

OBS	STUDY	CTYPE	PANELNO	PREPOST	PERIOD	CATVOL	BRVOL	CUMTRIAL	CUMRPT
729	20788E	3	1	PRE	107	13962	5999.6	.	.
730	20788E	3	1	PRE	111	13354	3901.8	.	.
731	20788E	3	1	PRE	115	16230	6797.2	.	.
732	20788E	3	1	PRE	119	16369	6756.1	.	.
733	20788E	3	1	PRE	123	8806	4912.0	.	.
734	20788E	3	1	PRE	127	9365	5471.8	.	.
735	20788E	3	1	PRE	131	5779	2730.0	.	.
736	20788E	3	1	PRE	135	3481	1658.1	.	.
737	20788E	3	1	PRE	139	3715	2326.2	.	.
738	20788E	3	1	PRE	143	5137	2900.1	.	.
739	20788E	3	1	PRE	147	4554	2520.1	.	.
740	20788E	3	1	PRE	151	6001	3317.0	.	.
741	20788E	3	1	PRE	155	10612	4401.4	.	.
742	20788E	3	1	TEST	159	9875	4844.2	.	.
743	20788E	3	1	TEST	163	13306	7232.8	.	.
744	20788E	3	1	TEST	167	14969	7430.6	.	.
745	20788E	3	1	TEST	171	11618	6193.4	.	.
746	20788E	3	1	TEST	175	11052	5956.4	.	.
747	20788E	3	1	TEST	179	6093	4433.2	.	.
748	20788E	3	1	TEST	183	5265	3521.0	.	.
749	20788E	3	1	TEST	187	3241	1818.2	.	.
750	20788E	3	2	PRE	107	11128	4775.3	.	.
751	20788E	3	2	PRE	111	10195	4519.0	.	.
752	20788E	3	2	PRE	115	16224	5269.9	.	.
753	20788E	3	2	PRE	119	14959	4544.3	.	.
754	20788E	3	2	PRE	123	11036	4392.4	.	.
755	20788E	3	2	PRE	127	9084	3883.2	.	.
756	20788E	3	2	PRE	131	4308	2094.1	.	.
757	20788E	3	2	PRE	135	3934	1550.4	.	.
758	20788E	3	2	PRE	139	3934	1177.0	.	.
759	20788E	3	2	PRE	143	4408	1883.5	.	.
760	20788E	3	2	PRE	147	3699	1890.1	.	.
761	20788E	3	2	PRE	151	4777	2334.0	.	.
762	20788E	3	2	PRE	155	8414	4650.9	.	.
763	20788E	3	2	TEST	159	8907	3131.0	.	.
764	20788E	3	2	TEST	163	12083	6023.0	.	.
765	20788E	3	2	TEST	167	13550	6364.6	.	.
766	20788E	3	2	TEST	171	8271	3866.0	.	.
767	20788E	3	2	TEST	175	9252	4616.0	.	.
768	20788E	3	2	TEST	179	6883	3788.0	.	.
769	20788E	3	2	TEST	183	4355	1893.4	.	.
770	20788E	3	2	TEST	187	1955	1251.9	.	.
771	21504A	3	1	PRE	134	524	77	.	.
772	21504A	3	1	PRE	138	503	60	.	.
773	21504A	3	1	PRE	142	554	72	.	.
774	21504A	3	1	PRE	146	550	141	.	.
775	21504A	3	1	PRE	150	536	108	.	.
776	21504A	3	1	PRE	154	604	112	.	.
777	21504A	3	1	PRE	158	572	103	.	.
778	21504A	3	1	PRE	162	541	88	.	.
779	21504A	3	1	PRE	166	557	93	.	.
780	21504A	3	1	PRE	170	534	97	.	.
781	21504A	3	1	PRE	174	494	84	.	.
782	21504A	3	1	PRE	178	605	111	.	.
783	21504A	3	1	PRE	182	514	78	.	.
784	21504A	3	1	TEST	186	491	95	1.5	32.7

OBS	STUDY	CTYPE	PANELNO	PREPOST	PERIOD	CATVOL	BRVOL	CUMTRIAL	CUMPPT
785	21504A	3	1	TEST	190	497	84	2.3	57.5
786	21504A	3	1	TEST	194	608	96	3.2	57.4
787	21504A	3	1	TEST	198	577	105	3.6	58.3
788	21504A	3	1	TEST	202	571	103	4.2	59.0
789	21504A	3	1	TEST	206	517	86	4.8	56.2
790	21504A	3	1	TEST	210	564	117	5.5	58.3
791	21504A	3	1	TEST	214	612	112	6.1	60.4
792	21504A	3	1	TEST	218	547	75	6.5	59.5
793	21504A	3	1	TEST	222	557	74	7.1	57.4
794	21504A	3	2	PRE	134	547	85	.	.
795	21504A	3	2	PRE	138	609	103	.	.
796	21504A	3	2	PRE	142	583	104	.	.
797	21504A	3	2	PRE	146	631	131	.	.
798	21504A	3	2	PRE	150	598	102	.	.
799	21504A	3	2	PRE	154	605	98	.	.
800	21504A	3	2	PRE	158	609	89	.	.
801	21504A	3	2	PRE	162	533	86	.	.
802	21504A	3	2	PRE	166	617	93	.	.
803	21504A	3	2	PRE	170	580	98	.	.
804	21504A	3	2	PRE	174	593	86	.	.
805	21504A	3	2	PRE	178	645	100	.	.
806	21504A	3	2	PRE	182	574	80	.	.
807	21504A	3	2	TEST	186	552	120	1.9	32.8
808	21504A	3	2	TEST	190	520	78	2.6	48.1
809	21504A	3	2	TEST	194	619	96	3.4	46.3
810	21504A	3	2	TEST	198	526	61	3.8	49.6
811	21504A	3	2	TEST	202	591	90	4.3	51.1
812	21504A	3	2	TEST	206	566	61	4.5	54.9
813	21504A	3	2	TEST	210	485	83	5.0	56.7
814	21504A	3	2	TEST	214	503	77	5.4	55.0
815	21504A	3	2	TEST	218	471	56	5.8	53.8
816	21504A	3	2	TEST	222	500	64	6.5	53.2
817	21504B								
818	21504C								
819	33811A	3	1	PRE	153	206.9	118.7	.	.
820	33811A	3	1	PRE	157	138.3	91.6	.	.
821	33811A	3	1	PRE	161	168.3	94.6	.	.
822	33811A	3	1	PRE	165	157.0	61.8	.	.
823	33811A	3	1	PRE	169	133.2	103.7	.	.
824	33811A	3	1	PRE	173	171.1	96.3	.	.
825	33811A	3	1	TEST	205	198.1	116.9	3.9	0
826	33811A	3	1	TEST	209	232.8	129.5	7.6	5.3
827	33811A	3	1	TEST	213	281.5	162.5	10.9	11.0
828	33811A	3	1	TEST	217	143.6	59.6	12.4	12.1
829	33811A	3	1	TEST	221	123.8	46.9	13.8	13.0
830	33811A	3	1	TEST	225	170.1	58.4	14.5	17.9
831	33811A	3	2	PRE	153	302.5	160.8	.	.
832	33811A	3	2	PRE	157	157.1	91.8	.	.
833	33811A	3	2	PRE	161	187.7	88.2	.	.
834	33811A	3	2	PRE	165	155.8	85.1	.	.
835	33811A	3	2	PRE	169	162.7	98.0	.	.
836	33811A	3	2	PRE	173	195.3	134.0	.	.
837	33811A	3	2	TEST	205	217.6	99.9	3.1	0
838	33811A	3	2	TEST	209	227.2	104.8	6.6	4.4
839	33811A	3	2	TEST	213	160.7	147.5	11.1	7.6
840	33811A	3	2	TEST	217	194.1	66.7	13.2	6.9

OBS	STUDY	CTYPE	PANELNO	PREPOST	PERIOD	CATVOL	BKVOL	CUMTRIAL	CUMPPT
841	33811A	3	2	TEST	221	160.9	70.4	14.3	9.0
842	33811A	3	2	TEST	225	103.7	43.3	17.5	9.0
843	34009A	3	3	PRE	106	7.3	.	.	.
844	34009A	3	3	PRE	110	7.1	.	.	.
845	34009A	3	3	PRE	114	6.4	.	.	.
846	34009A	3	3	PRE	118	6.4	.	.	.
847	34009A	3	3	PRE	122	5.4	.	.	.
848	34009A	3	3	PRE	126	4.3	.	.	.
849	34009A	3	3	PRE	130	3.5	.	.	.
850	34009A	3	3	PRE	134	3.5	.	.	.
851	34009A	3	3	PRE	138	3.5	.	.	.
852	34009A	3	3	PRE	142	3.5	.	.	.
853	34009A	3	3	PRE	146	3.2	.	.	.
854	34009A	3	3	PRE	150	4.4	.	.	.
855	34009A	3	3	PRE	154	6.0	.	.	.
856	34009A	3	3	TEST	158	7.2	.	.	.
857	34009A	3	3	TEST	162	7.0	.	.	.
858	34009A	3	3	TEST	166	6.0	.	.	.
859	34009A	3	3	TEST	170	5.3	.	.	.
860	34009A	3	3	TEST	174	4.0	.	.	.
861	34009B	3	3	PRE	106	10.4	.	.	.
862	34009B	3	3	PRE	110	10.5	.	.	.
863	34009B	3	3	PRE	114	9.6	.	.	.
864	34009B	3	3	PRE	118	7.8	.	.	.
865	34009B	3	3	PRE	122	5.8	.	.	.
866	34009B	3	3	PRE	126	4.1	.	.	.
867	34009B	3	3	PRE	130	3.8	.	.	.
868	34009B	3	3	PRE	134	4.3	.	.	.
869	34009B	3	3	PRE	138	5.2	.	.	.
870	34009B	3	3	PRE	142	5.4	.	.	.
871	34009B	3	3	PRE	146	6.3	.	.	.
872	34009B	3	3	PRE	150	7.8	.	.	.
873	34009B	3	3	PRE	154	11.2	.	.	.
874	34009B	3	3	TEST	158	10.7	.	.	.
875	34009B	3	3	TEST	162	9.5	.	.	.
876	34009B	3	3	TEST	166	8.0	.	.	.
877	34009B	3	3	TEST	170	6.4	.	.	.
878	34009B	3	3	TEST	174	5.3	.	.	.
879	34120A	3	1	PRE	110	108.5	30.9	.	.
880	34120A	3	1	PRE	114	132.2	22.8	.	.
881	34120A	3	1	PRE	118	208.7	52.9	.	.
882	34120A	3	1	PRE	122	189.3	54.5	.	.
883	34120A	3	1	PRE	126	129.3	32.2	.	.
884	34120A	3	1	PRE	130	194.1	67.4	.	.
885	34120A	3	1	PRE	134	167.0	39.8	.	.
886	34120A	3	1	PRE	138	160.8	53.0	.	.
887	34120A	3	1	PRE	142	193.6	39.0	.	.
888	34120A	3	1	PRE	146	180.5	28.0	.	.
889	34120A	3	1	PRE	150	144.6	61.0	.	.
890	34120A	3	1	PRE	154	153.1	17.0	.	.
891	34120A	3	1	PRE	158	120.2	24.4	.	.
892	34120A	3	1	TEST	162	118.9	29.6	0.9	0.0
893	34120A	3	1	TEST	166	162.3	66.2	2.4	16.7
894	34120A	3	1	TEST	170	151.6	47.9	3.3	15.1
895	34120A	3	1	TEST	174	181.2	43.9	4.2	21.4
896	34120A	3	1	TEST	178	153.0	38.5	4.8	27.0

OBS	STUDY	CTYPE	PANELNO	PREPOST	PERIOD	CATVOL	PRVOL	CUMTRIAL	CUMPRT
897	34120A	3	1	TEST	182	104.0	34.0	5.6	25.0
898	34120A	3	1	TEST	186	203.2	55.0	6.4	25.0
899	34120A	3	1	TEST	190	138.0	55.5	7.5	29.3
900	34120A	3	1	TEST	194	240.4	53.4	7.7	37.7
901	34120A	3	1	TEST	198	142.0	28.5	9.2	35.4
902	34120A	3	2	PRE	110	179.0	42.7	.	.
903	34120A	3	2	PRE	114	155.4	42.0	.	.
904	34120A	3	2	PRE	118	261.1	50.4	.	.
905	34120A	3	2	PRE	122	179.1	44.2	.	
906	34120A	3	2	PRE	126	134.5	44.6	.	.
907	34120A	3	2	PRE	130	191.9	46.3	.	.
908	34120A	3	2	PRE	134	207.6	36.8	.	.
909	34120A	3	2	PRE	138	131.8	52.1	.	.
910	34120A	3	2	PRE	142	182.5	33.1	.	.
911	34120A	3	2	PRE	146	245.4	63.3	.	.
912	34120A	3	2	PRE	150	185.6	37.7	.	.
913	34120A	3	2	PRE	154	136.5	18.4	.	.
914	34120A	3	2	PRE	158	143.5	37.1	.	.
915	34120A	3	2	TEST	162	120.9	20.4	0.7	0.0
916	34120A	3	2	TEST	166	181.2	49.2	2.2	13.6
917	34120A	3	2	TEST	170	111.7	22.4	2.9	10.3
918	34120A	3	2	TEST	174	166.1	40.0	3.6	16.7
919	34120A	3	2	TEST	178	199.9	51.7	5.6	15.0
920	34120A	3	2	TEST	182	150.2	29.4	6.9	14.5
921	34120A	3	2	TEST	186	115.1	23.6	7.5	16.0
922	34120A	3	2	TEST	190	137.3	34.2	7.8	25.6
923	34120A	3	2	TEST	194	150.1	39.8	8.2	35.3
924	34120A	3	2	TEST	198	149.0	48.8	8.5	39.8

OBS	STUDY	CTYPE	LNG	SWITCH1	SWIDIR1	BUY1	BUYDIR1	CATE1	CATDIR1	SWITCH2	SWIDIR2	BUY2	BUYDIR2	CATE2	CATDIR2	SWITCH3	SWIDIR3	BUY3	BUYDIR3	CATE3	CATDIR3	TESTPRE	TESTPOST	CONTPRE	CONTPOST	COMPPRE	COMPPOST
1	01409A	4	32	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	01409B	4	32	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	01415A	4	48	.	.	.	.	.	.	.	.	.	.	.	.	0.4	0	8.7	1	91.7	1	.	.	.	.	46	45
4	01415B	4	48	.	.	.	.	.	.	.	.	.	.	.	.	59.0	0	26.2	0	14.7	0	.	.	.	.	46	33
5	02599A	4	104	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.	
6	03804A	4	76	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.	56	.	54		55
7	03804B	4	76	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	56	.	54	.	55
8	03804C	4	76	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	56	.	54	.	55
9	04107A	4	68	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	75
10	04107B	4	68	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	75
11	07123A	4	88	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
12	07131A	4	80	88.4	1	3.4	1	8.1	1	15.0	0	61.5	0	23.5	0	.	.	.	.	.	.	.	.	.	.	.	.
13	09629A	4	104	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
14	09629B	4	104	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
15	09629C	4	104	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
16	10906A	4	80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
17	10906B	4	80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
18	17602A	4	48	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
19	18807A	4	94	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
20	18901A	4	72	.	.	.	.	.	.	.	.	.	.	.	.	24.7	0	42.0	1	117.3	0	.	.	.	.	63.4	61.8
21	20704A	4	120	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
22	20720A	4	72	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
23	20720B	4	72	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
24	20788A	4	80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
25	20788B	4	80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
26	20788C	4	32	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
27	20788D	4	32	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
28	20788E	4	84	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
29	21504A	4	92	40	1	25	1	35	1	46	1	31	1	23	1	.	.	.	.	.	.	.	.	.	.	.	.
30	21504B	4	92	40	1	25	1	35	1	46	1	31	1	23	1	.	.	.	.	.	.	.	.	.	.	.	.
31	21504C	4	92	40	1	25	1	35	1	46	1	31	1	23	1	.	.	.	.	.	.	.	.	.	.	.	.
32	33811A	4	48	2.2	1	47.4	0	50.4	1	0.5	1	89.3	0	11.2	0	.	.	.	.	.	.	.	.	.	.	76.7	69
33	34009A	4	80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
34	34009B	4	80	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
35	34120A	4	92	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	71.2

OBS	STUDY	COPYTEST	WGHTEST	STAT1	PREINT	TESTINT	TVOLL	WDIFF1	CUDIP	CONF	TEF	VOLCH1	CUMTRY1	CUMRPT1	SHARE1	CUMTRY2	CUMRPT2	SHARE2	SHARE3	SHARE4
1	01409A	0	1	2114	17	16	.	.	1	95	1	45.00	.	.	.	.	.	.	.	.
2	01409B	0	1	1920	17	16	.	.	1	70	0	6.00	.	.	.	.	.	.	.	.
3	01415A	0	1	2083	24	28	.	.	1	80	1	20.80	13.3	27.6	15.9047	11.1	24.8	5.2475	15.7952	22.9137
4	01415B	0	1	1843	24	28	.	.	1	80	1	20.80	7.4	25.4	2.1578	3.5	22.1	4.6988	11.0429	7.7339
5	02599A	0	1	1311	52	52	.	38	1	78	0	49.00	.	.	2.8863	.	.	3.9262	1.2387	2.5191
6	03804A	0	1	1426	12	64	.	57	1	90	1	5.60	.	.	40.5392	.	.	40.5126	34.2291	36.7351
7	03804B	0	1	1028	12	64	.	57	1	90	1	5.60	.	.	57.0691	.	.	44.8749	42.6667	41.2462
8	03804C	0	1	1370	12	64	.	57	1	90	1	5.60	.	.	50.8206	.	.	40.9815	47.3539	41.3518
9	04107A	0	1	1549	8	60	100.000	140	.	90	0	0.00	54.8	57.3	77.4390	57.6	56.9	78.0362	62.5235	66.6657
10	04107B	0	1	1788	8	60	100.000	140	.	90	0	0.00	.	.	.	.	.	.	.	.
11	07123A	1	0	1733	52	36	.	.	.	80	0	0.00	4.9	30.2	1.2405	4.5	31.6	0.9839	4.6801	1.8339
12	07131A	0	1	1381	52	28	.	.	1	73	0	5.10	.	.	65.0285	.	.	76.1765	66.0745	69.4788
13	09629A	0	1	1535	52	52	80.000	.	.	70	0	0.00	16.5	.	.	21.0	.	.	.	.
14	09629B	0	1	1536	52	52	80.000	.	.	70	0	0.00	.	.	.	.	.	.	.	.
15	09629C	0	1	1693	52	52	80.000	.	.	70	0	0.00	5.0	.	.	8.5	.	.	.	.
16	10906A	0	1	1417	40	40	100.000	50	0	70	0	9.00	.	.	19.2584	.	.	21.6290	21.1137	19.9422
17	10906B	0	1	1417	40	40	100.000	50	0	70	0	9.00	.	.	.	.	.	.	.	.
18	17602A	1	0	2047	24	24	.	.	0	85	1	15.00	13.4	25.2	22.9008	13.1	27.5	23.7500	19.8444	11.5226
19	18807A	1	0	1675	44	40	.	.	.	67	0	0.00	.	.	.	.	.	.	.	.
20	18901A	0	1	1685	44	28	.	.	0	55	0	8.20	15.3	28.0	50.6886	14.7	28.9	43.0635	43.0371	37.9973
21	20704A	1	0	2200	52	68	.	.	0	80	1	0.41	.	.	4.9279	.	.	3.8420	7.6183	7.6534
22	20720A	0	1	1710	52	20	49.541	.	.	80	0	0.00	40.7	25.5	67.8595	44.1	25.7	72.4551	63.4193	68.3730
23	20720B	0	1	1369	52	20	49.541	.	.	80	0	0.00	34.9	23.6	51.6257	33.2	22.3	54.0638	56.8375	53.3195
24	20788A	1	0	1664	52	28	.	.	1	50	0	10.00	.	.	0.0000	.	.	6.4841	11.7490	15.5433
25	20788B	1	0	1604	52	28	.	.	0	62	0	3.00	.	.	14.8966	.	.	15.0931	26.4140	36.8221
26	20788C	1	0	1886	.	32	.	.	1	50	0	5.30	.	.	23.8860	.	.	3.4500	.	.
27	20788D	1	0	2058	.	32	.	.	0	96	1	7.30	.	.	73.0281	.	.	72.6544	.	.
28	20788E	1	0	1339	52	32	.	.	1	77	0	10.40	.	.	56.1000	.	.	64.0358	45.2450	55.2757
29	21504A	0	1	2103	52	40	40.404	43	1	81	1	11.00	7.1	57.8	13.2855	6.5	53.2	12.8000	15.1751	13.3373
30	21504B	0	1	2103	52	40	40.404	43	1	81	1	11.00	.	.	.	.	.	.	.	.
31	21504C	0	1	2103	52	40	40.404	43	1	81	1	11.00	.	.	.	.	.	.	.	.
32	33811A	0	1	1429	24	24	.	.	1	62	0	3.30	14.5	17.9	34.3327	17.6	8.0	46.5767	56.2829	68.6124
33	34009A	0	1	1376	52	28	.	100	1	93	1	13.50	.	.	.	.	.	.	.	.
34	34009B	0	1	1586	52	28	.	52	0	50	0	2.60	.	.	.	.	.	.	.	.
35	34120A	1	0	1459	52	40	.	.	1	78.5	0	9.50	8.2	35.4	29.0704	8.5	39.8	32.7517	20.2995	27.2234

Appendix V

Definitions of Measures.

Variables

Here follows a list of variables in each dataset and a brief explanation of each. The variable study is common to each dataset and is thus used for merging datasets.

LIB. A:

1) STUDY - The study code. It is composed of five digits taken from the original brief of the study and one alphanumeric character. If one study was conducted in three different markets, it is input as three different studies with the same five digit number but a different alphanumeric character - e.g., 01074A, 01074B, 01074C. This later eases the process of collapsing the above into 1 study by ignoring the alphanumeric character.

2) CTYPE - Identifies card types.

3) CLIENT - Identifies the client.

4) BRAND - Brand under study.

5) CATI - A maximum of three SAMI category numbers can be identified with each study. This is the first category number.

6) CATDESC1 - Description of category #1.

7) CAT2 - SAMI category #2.

8) CATDESC2 - Description of category #2.

9) CAT3 - SAMI category #3.

10) CATDESC3 - Description of category #3.

11) CITIES - The city in which the test was conducted.
- B - Bakersfield
- C - Charleston
- E - Evansville
- K - Kansas City
- O - Orlando
- P - Portland
- Q - Quad Cities

12) COPY A - Copy name in Test Panel.

13) COPY B - Copy name in Control Panel. If it contains the prefix SME, it implies that this copy was used before the test. If it does not contain the prefix, it implies that two new copies are being tested.

14) COPYTEST - 1 if it is a copy test.
0 no copy test.

15) WEGHTEST - 1 if it is a weight test.
0 no weight test.

16) STRATEST - 1 if it is a strategy test.
0 no strategy test.

17) NEWPROD - 1 if it is a new product.
0 if it is a continuing brand.

18) OTHTEST - 1 if any other test is conducted.
0 no other test.

19) OTDESCR1 - Describes the other test or the strategy test.

20) NPANELS - Number of panels in the study. Usually 2 - test and control unless it is a new product test, in which case there is only one panel.

21) PREBEGIN - Issue number when pretest begins.

22) PREEND - Issue number when pretest ends.

23) TSTBEGIN - Issue number when test begins.

24) TSTEND - Issue number when test ends.

25) STAT - Static size.

26) WDIFF - Difference in GRP levels between test and control panel.

27) TVDOLLC - Dollars spent on advertising in control panel - in millions.

28) TVDOLLT - Dollars spent on advertising in the test panel - in millions.

<u>LIB. B</u>:

1) STUDY - Study code.

2) CTYPE - Card type identifier.

3) VOLCH - Absolute change in volume.

4) CHDIR - Direction of change in volume
0 = negative
1 = positive.

5) CONF - Confidence level.

6) TAILS - One or two tail test.

7) MODEL - 1 = Household
2 = Store
3 = Other.

8) CATEFF - Category effect
0 = no effect
1 = positive effect.

9) TREFF - Trial and repeat effect
0 = no effect
1 = trial effect
2 = repeat effect
3 = both trial and repeat effect
4 = negative effect.

10) HLEFF - Heavy/Light buyers effect
0 = no effect
1 = heavy buyers effect
2 = light buyers effect
3 = effect on both heavy and light buyers
4 = negative effect.

11) BREFF - Buying rate effect
0 = no effect
1 = positive effect
2 = negative effect.

12) CATPC - Category purchasing cycle in days.

13) BRPC - Brand purchasing cycle in days.

14) EFFDESC1 - Description of any other effect.

15) EFFDESC2 - Description of any other effect.

LIB. C:

1) STUDY - Study code.

2) CTYPE - Identifies card type.

3) PANELNO - Panel number
1 = test panel
2 = control panel
3 = combined panels.

4) PREPOST - Pre - Pretest period.
Test - Test Period.

5) PERIOD - Issue number for that observation.

6) CATVOL - Category volume per 100 HH.

7) BRVOL - Brand volume per 100 HH.

8) CUMTRIAL - Cumulative trial for that issue period.

9) CUMRPT - Cumulative repeat for that issue period.

LIB. D.:

1) STUDY - Study code.

2) CTYPE - Identifies card type.

3) LNG - Total length of pretest and test period.

4) SWITCH1 - Source of volume due to switching in test panel.

5) SWIDIR1 - Direction of change
0 = negative
1 = positive.

6) BUY1 - SOV due to new/lost buyers in test panel.

7) BUYDIR1 - Direction of change
0 = negative
1 = positive.

8) CATE1 - SOV due to increased/decreased purchasing in test panel.

9) CATDIR1 - Direction of change
0 = negative
1 = positive.

10) SWITCH2 - SOV due to switching in control panel.

11) SWIDIR2 - Direction of change.

12) BUY2 - SOV due to new/lost buyers in control panel.

13) BUYDIR2 - Direction of change.

14) CATE2 - SOV due to increased/decreased purchasing in control panel.

15) CATDIR2 - Direction of change.

16) SWITCH3 - SOV due to switching in combined panels.

17) SWIDIR3 - Direction of change.

18) BUY3 - SOV due to new/lost buyers in combined panels.

19) BUYDIR3 - Direction of change.

20) CATE3 - SOV due to increased decreased purchasing in combined panels.

21) CATDIR3 - Direction of change.

22) TESTPRE - Brand loyalty in test panel, pretest period.

23) TESTPOST - Brand loyalty in test panel, test period.

24) CONTPRE - Brand loyalty in control panel, pretest period.

25) CONTPOST - Brand loyalty in control panel, test period.

26) COMBPRE - Brand loyalty in combined panel, pretest period.

27) COMBPOST - Brand loyalty in combined panel, test period.

<u>Other Variables Used in the Analysis</u>

1) STAT1 - Static size.

2) WDIFF1 - Difference in GRP levels of test and control panel.

3) PREINT - Length of pretest period.

4) TESTINT - Length of test period.

5) TVDOLL - Percentage difference in dollars between test and control panel.

6) CUMTRY1 - Cumulative trial in test period, test panel.

7) CUMTRY2 - Cumulative trial in test period, control panel.

8) TRIAL - First difference = ($CUMTRY_1$ - $CUMTRY_2$).

9) CUMRPT1 - Cumulative repeat in test panel, test period.

10) CUMRPT2 - Cumulative repeat in control panel, test period.

11) REPEAT - First difference - ($CUMRPT_1$ - $CUMRPT_2$).

12) SHARE1 - Share in test period, test panel.

13) SHARE2 - Share in test period, control panel.

14) SHARE3 - Share in pretest period, test panel.

15) SHARE4 - Share in pretest period, control panel.

16) SHARE - Second difference = (SHARE1 - SHARE2) - (SHARE3 - SHARE4).

17) TEF - Advertising effect
0 = no effect
1 = advertising effect.

Appendix VI

Discriminant Analysis.

```
04 NOV 85    SPSS-X RELEASE 2.0  FOR IBM VM/CMS                                                  PAGE   1
15:42:50     MIAMIU UNIVERSITY                  IBM 4341 M2       VM/SP CMS

SPSS INC LICENSE NUMBER:  18621

                           NEW FEATURES IN SPSS-X RELEASE 2
            FOR MORE DETAILS, USE THE COMMAND:  INFO OVERVIEW FACILITIES.

            PLOT - SCATTER PLOTS, OVERLAY PLOTS, CONTOUR PLOTS ON THE PRINTER.
     HILOGLINEAR - FAST LOGLINEAR ANALYSIS FOR HIERARCHICAL MODELS.
         CLUSTER - HIERARCHICAL CLUSTER ANALYSIS.
   QUICK CLUSTER - FAST CLUSTER ANALYSIS FOR A FIXED NUMBER OF CLUSTERS.
   IMPORT/EXPORT - PORTABLE SYSTEM FILES FOR TRANSFER TO OTHER KINDS OF COMPUTERS.
          PROBIT - DICHOTOMOUS PROBIT AND LOGISTIC REGRESSION ANALYSIS.
          LISREL - JORESKOG AND SORBOM'S PROGRAM FOR LINEAR STRUCTURAL RELATIONS.
                   (LISREL IS AN EXTRA-COST OPTION.)
       SET WIDTH - WIDTH CONTROL FOR PRINTED OUTPUT.
           XSAVE - ALLOWS NEW FLEXIBILITY IN SAVING SYSTEM FILES.
       USERPROCS - YOU CAN ADD A PROCEDURE TO SPSS-X.
    VSAM SUPPORT - SPSS-X CAN READ DATA FILES RESIDING IN VSAM DATA SPACES.
  END SUBCOMMAND - WITH DATA LIST, YOU CAN DETECT END OF FILE.

PARM FIELD:  48K

   1  0         FILE HANDLE RES/NAME='JAN DAT A'
   2  0         DATA LIST FILE=RES RECORDS=1/1 OBS 1-2 COPYTEST 4 STATIC 6-9
   3  0                            PREINT 11-12 TESTINT 14-15 TEF 17 VOL 19-22
   4  0                            CUMTRY1 24-27 CUMRPT1 29-32 SHARE1 34-37
   5  0                             CUMTRY2 39-42 CUMRPT2 44-47 SHARE2 49-52
   6  0                             SHARE3 54-57 SHARE4 59-62

THE ABOVE DATA LIST STATEMENT WILL READ   1 RECORDS FROM FILE RES

         VARIABLE    REC  START    END         FORMAT  WIDTH  DEC

         OBS          1      1      2           F         2     0
         COPYTEST     1      4      4           F         1     0
         STATIC       1      6      9           F         4     0
         PREINT       1     11     12           F         2     0
         TESTINT      1     14     15           F         2     0
         TEF          1     17     17           F         1     0
         VOL          1     19     22           F         4     0
         CUMTRY1      1     24     27           F         4     0
         CUMRPT1      1     29     32           F         4     0
         SHARE1       1     34     37           F         4     0
         CUMTRY2      1     39     42           F         4     0
         CUMRPT2      1     44     47           F         4     0
         SHARE2       1     49     52           F         4     0
         SHARE3       1     54     57           F         4     0
         SHARE4       1     59     62           F         4     0

END OF DATALIST TABLE.

   7  0         SET BLANKS=999
   8  0         MISSING VALUES OBS TO SHAPE4 (999)
   9  0         COMPUTE SET = UNIFORM(1) > .4
```

```
10  0        DISCRIMINANT               GROUPS=TEF(0,1)/
11  0                                   SELECT= SET(0)/
12  0                                   VARIABLES=STATIC PREINT TESTINT/
13  0                                   METHOD=WILKS/
14  0        STATISTICS  1 2 11 13
```

THERE ARE 700016 BYTES OF MEMORY AVAILABLE.
THE LARGEST CONTIGUOUS AREA HAS 700016 BYTES.

SINCE ANALYSIS= WAS OMITTED FOR THE FIRST ANALYSIS ALL VARIABLES
ON THE VARIABLES= LIST WILL BE ENTERED AT LEVEL 1.

THIS DISCRIMINANT ANALYSIS REQUIRES 696 (0.7K) BYTES OF WORKSPACE.

- - - - - - - - - - - - - - - - D I S C R I M I N A N T   A N A L Y S I S - - - - - - - - - - - - - - - -

ON GROUPS DEFINED BY TEF

```
45 (UNWEIGHTED) CASES WERE PROCESSED.
23 OF THESE WERE EXCLUDED FROM THE ANALYSIS.
    0 HAD MISSING OR OUT-OF-RANGE GROUP CODES.
    2 HAD AT LEAST ONE MISSING DISCRIMINATING VARIABLE.
   21 WERE EXCLUDED BY THE SELECT= VARIABLE.
22 (UNWEIGHTED) CASES WILL BE USED IN THE ANALYSIS.
```

NUMBER OF CASES BY GROUP

	NUMBER OF CASES		
TEF	UNWEIGHTED	WEIGHTED	LABEL
0	15	15.0	
1	7	7.0	
TOTAL	22	22.0	

GROUP MEANS

TEF	STATIC	PREINT	TESTINT
0	1627.40000	40.26667	35.20000
1	1783.28571	36.00000	44.57143
TOTAL	1677.00000	38.90909	38.18182

GROUP STANDARD DEVIATIONS

TEF	STATIC	PREINT	TESTINT
0	156.60633	16.31593	11.63247
1	264.65809	19.18333	20.18958

```
TOTAL       204.66000       16.93379      15.05430

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15:42:53     MIAMIU UNIVERSITY                 IBM 4341 M2      VM/SP CMS

- - - - - - - - - - - - - - - - - - - - - -   D I S C R I M I N A N T   A N A L Y S I S   - - - - - - - - - - - - - - - - - - - -

ON GROUPS DEFINED BY TEF

ANALYSIS NUMBER        1

STEPWISE VARIABLE SELECTION

    SELECTION RULE:  MINIMIZE WILKS' LAMBDA
    MAXIMUM NUMBER OF STEPS......................          6
    MINIMUM TOLERANCE LEVEL......................    0.00100
    MINIMUM F TO ENTER...........................     1.0000
    MAXIMUM F TO REMOVE..........................     1.0000

CANONICAL DISCRIMINANT FUNCTIONS

    MAXIMUM NUMBER OF FUNCTIONS..................          1
    MINIMUM CUMULATIVE PERCENT OF VARIANCE.......     100.00
    MAXIMUM SIGNIFICANCE OF WILKS' LAMBDA........     1.0000

PRIOR PROBABILITY FOR EACH GROUP IS 0.50000

-------------------- VARIABLES NOT IN THE ANALYSIS AFTER STEP  0 --------------------

                          MINIMUM
VARIABLE    TOLERANCE    TOLERANCE      F TO ENTER      WILKS' LAMBDA

STATIC      1.0000000    1.0000000        3.0376          0.8681458
PREINT      1.0000000    1.0000000        .29279          0.9855717
TESTINT     1.0000000    1.0000000        1.9316          0.9119280

* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

AT STEP  1, STATIC    WAS INCLUDED IN THE ANALYSIS.

                                           DEGREES OF FREEDOM  SIGNIFICANCE    BETWEEN GROUPS
WILKS' LAMBDA          0.8681458           1    1      20.0
EQUIVALENT F           3.037605                 1      20.0      0.0967

---------------- VARIABLES IN THE ANALYSIS AFTER STEP  1 ----------------

VARIABLE    TOLERANCE     F TO REMOVE     WILKS' LAMBDA

STATIC      1.0000000       3.0376

-------------------- VARIABLES NOT IN THE ANALYSIS AFTER STEP  1 --------------------

                          MINIMUM
VARIABLE    TOLERANCE    TOLERANCE      F TO ENTER      WILKS' LAMBDA
```

PREINT	0.9561921	0.9561921	.70782	[illegible]
TESTINT	0.9992623	0.9992627	1.4975	0.8051158

* *

AT STEP 2, TESTINT WAS INCLUDED IN THE ANALYSIS.

		DEGREES OF FREEDOM			SIGNIFICANCE	BETWEEN GROUPS
WILKS' LAMBDA	0.8051158	2	1	20.0		
EQUIVALENT F	2.299546		2	19.0	0.1275	

---------------- VARIABLES IN THE ANALYSIS AFTER STEP 2 ----------------

VARIABLE	TOLERANCE	F TO REMOVE	WILKS' LAMBDA
STATIC	0.9992623	2.5207	0.9119280
TESTINT	0.9992623	1.4875	0.8681458

-------------------- VARIABLES NOT IN THE ANALYSIS AFTER STEP 2 --------------------

VARIABLE	TOLERANCE	MINIMUM TOLERANCE	F TO ENTER	WILKS' LAMBDA
PREINT	0.8091186	0.8091186	.13682	0.7990423

F LEVEL OR TOLERANCE OR VIN INSUFFICIENT FOR FURTHER COMPUTATION.

SUMMARY TABLE

STEP	ACTION ENTERED	ACTION REMOVED	VARS IN	WILKS' LAMBDA	SIG.	LABEL
1	STATIC		1	0.868146	0.0967	
2	TESTINT		2	0.805116	0.1275	

CANONICAL DISCRIMINANT FUNCTIONS

FUNCTION	EIGENVALUE	PERCENT OF VARIANCE	CUMULATIVE PERCENT	CANONICAL CORRELATION	:	AFTER FUNCTION	WILKS' LAMBDA	CHI-SQUARED	D.F.	SIGNIFICANCE
					:	0	0.8051158	4.1186	2	0.1275
1*	0.24206	100.00	100.00	0.4414570	:					

* MARKS THE 1 CANONICAL DISCRIMINANT FUNCTION(S) TO BE USED IN THE REMAINING ANALYSIS.

STANDARDIZED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS

	FUNC 1
STATIC	0.77554
TESTINT	0.61060

STRUCTURE MATRIX:

POOLED WITHIN-GROUPS CORRELATIONS BETWEEN CANONICAL DISCRIMINANT FUNCTIONS AND DISCRIMINATING VARIABLES
VARIABLES ARE ORDERED BY THE FUNCTION WITH LARGEST CORRELATION AND THE MAGNITUDE OF THAT CORRELATION.

	FUNC 1
STATIC	0.79212
TESTINT	0.63165
PREINT	-0.06828

UNSTANDARDIZED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS

	FUNC 1
STATIC	.3968974D-02
TESTINT	.4144897D-01
(CONSTANT)	-8.238567

CANONICAL DISCRIMINANT FUNCTIONS EVALUATED AT GROUP MEANS (GROUP CENTROIDS)

GROUP	FUNC 1
0	-0.32045
1	0.68669

CLASSIFICATION RESULTS FOR CASES SELECTED FOR USE IN THE ANALYSIS -

ACTUAL GROUP	NO. OF CASES	PREDICTED GROUP MEMBERSHIP 0	1
GROUP 0	16	12 75.0%	4 25.0%
GROUP 1	8	3 37.5%	5 62.5%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 70.83%

CLASSIFICATION RESULTS FOR CASES NOT SELECTED FOR USE IN THE ANALYSIS -

ACTUAL GROUP	NO. OF CASES	PREDICTED GROUP MEMBERSHIP 0	1
GROUP 0	9	7 77.8%	2 22.2%
GROUP 1	12	4 33.3%	8 65.7%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 71.43%

```
CLASSIFICATION PROCESSING SUMMARY

        45 CASES WERE PROCESSED.
         0 CASES WERE EXCLUDED FOR MISSING OR OUT-OF-RANGE GROUP CODES.
         0 CASES HAD AT LEAST ONE MISSING DISCRIMINATING VARIABLE.
        45 CASES WERE USED FOR PRINTED OUTPUT.


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15:42:55    MIAMIU UNIVERSITY                IBM 4341 M2        VM/SP CMS

PRECEDING TASK REQUIRED        0.46 SECONDS CPU TIME;       2.91 SECONDS ELAPSED.

  15  0          DISCRIMINANT            GROUPS=TEF(0,1)/
  16  0                                  SELECT= SET(0)/
  17  0                                  VARIABLES=STATIC PREINT TESTINT CUMTRY1 CUMRPT1
  18  0                                        CUMTRY2 CUMRPT2/
  19  0                                  METHOD=WILKS/
  20  0          STATISTICS  1 2 11 13

THERE ARE    699856 BYTES OF MEMORY AVAILABLE.
THE LARGEST CONTIGUOUS AREA HAS   699856 BYTES.

SINCE ANALYSIS= WAS OMITTED FOR THE FIRST ANALYSIS ALL VARIABLES
ON THE VARIABLES= LIST WILL BE ENTERED AT LEVEL 1.

THIS DISCRIMINANT ANALYSIS REQUIRES      2040 (      2.0K) BYTES OF WORKSPACE.


04 NOV 85   SPSS-X RELEASE 2.0  FOR IBM VM/CMS                                      PAGE   6
15:42:57    MIAMIU UNIVERSITY                IBM 4341 M2        VM/SP CMS

- - - - - - - - - - - - - - - - - - - - - -  D I S C R I M I N A N T   A N A L Y S I S  - - - - - - - - - - - - - - - - - - - - -

ON GROUPS DEFINED BY TEF

            45 (UNWEIGHTED) CASES WERE PROCESSED.
            34 OF THESE WERE EXCLUDED FROM THE ANALYSIS.
                0 HAD MISSING OR OUT-OF-RANGE GROUP CODES.
               20 HAD AT LEAST ONE MISSING DISCRIMINATING VARIABLE.
               14 WERE EXCLUDED BY THE SELECT- VARIABLE.
            11 (UNWEIGHTED) CASES WILL BE USED IN THE ANALYSIS.


NUMBER OF CASES BY GROUP

               NUMBER OF CASES
  TEF        UNWEIGHTED     WEIGHTED   LABEL

      0               8          8.0
      1               3          3.0

    TOTAL            11         11.0


GROUP MEANS
```

TEF	STATIC	PREINT	TESTINT	CUMTRY1	CUMRPT1	CUMTRY2	CUMRPT2
0	1630.87500	42.00000	35.50000	21.50000	30.91250	22.22500	32.47500
1	1657.00000	41.33333	25.33333	15.36667	40.73333	15.03333	43.96667
TOTAL	1638.00000	41.81818	32.72727	19.82727	33.59091	20.26364	35.60909

GROUP STANDARD DEVIATIONS

TEF	STATIC	PREINT	TESTINT	CUMTRY1	CUMRPT1	CUMTRY2	CUMRPT2
0	136.36132	16.83534	13.92839	12.97437	7.78138	13.92508	13.30626
1	120.78493	15.14376	2.30940	10.59827	21.78998	10.08183	10.22464
TOTAL	126.81798	15.63213	12.62609	12.18631	12.58527	12.93633	13.17805

\- D I S C R I M I N A N T A N A L Y S I S -

ON GROUPS DEFINED BY TEF

ANALYSIS NUMBER 1

STEPWISE VARIABLE SELECTION

SELECTION RULE: MINIMIZE WILKS' LAMBDA
MAXIMUM NUMBER OF STEPS.................... 14
MINIMUM TOLERANCE LEVEL.................... 0.00100
MINIMUM F TO ENTER......................... 1.0000
MAXIMUM F TO REMOVE........................ 1.0000

CANONICAL DISCRIMINANT FUNCTIONS

MAXIMUM NUMBER OF FUNCTIONS................ 1
MINIMUM CUMULATIVE PERCENT OF VARIANCE..... 100.00
MAXIMUM SIGNIFICANCE OF WILKS' LAMBDA...... 1.0000

PRIOR PROBABILITY FOR EACH GROUP IS 0.50000

\------------------ VARIABLES NOT IN THE ANALYSIS AFTER STEP 0 ------------------

VARIABLE	TOLERANCE	MINIMUM TOLERANCE	F TO ENTER	WILKS' LAMBDA
STATIC	1.0000000	1.0000000	.84111D-01	0.9907409
PREINT	1.0000000	1.0000000	.35723D-02	0.9996032
TESTINT	1.0000000	1.0000000	1.4829	0.8585386
CUMTRY1	1.0000000	1.0000000	.52650	0.9447328
CUMRPT1	1.0000000	1.0000000	1.3789	0.8671412
CUMTRY2	1.0000000	1.0000000	.65075	0.9325696
CUMRPT2	1.0000000	1.0000000	1.7903	0.8349852

* *

AT STEP 1. CUMRPT2 WAS INCLUDED IN THE ANALYSIS.

		DEGREES OF FREEDOM			SIGNIFICANCE	BETWEEN GROUPS
WILKS' LAMBDA	0.8340862	1	1	9.0		
EQUIVALENT F	1.790252		1	9.0	0.2137	

---------------- VARIABLES IN THE ANALYSIS AFTER STEP 1 ----------------

VARIABLE	TOLERANCE	F TO REMOVE	WILKS' LAMBDA
CUMRPT2	1.0000000	1.7903	

-------------------- VARIABLES NOT IN THE ANALYSIS AFTER STEP 1 --------------------

VARIABLE	TOLERANCE	MINIMUM TOLERANCE	F TO ENTER	WILKS' LAMBDA
STATIC	0.7841693	0.7841693	.10395	0.8233870
PREINT	0.9841872	0.9841872	.39169D-01	0.8300223
TESTINT	0.6474372	0.6474372	4.6367	0.5280389
CUMTRY1	0.9456479	0.9456479	.84399	0.7544883
CUMRPT1	0.4376026	0.4376026	.49466D-01	0.8289605
CUMTRY2	0.9670553	0.9670553	.84453	0.7544428

* *

AT STEP 2. TESTINT WAS INCLUDED IN THE ANALYSIS.

		DEGREES OF FREEDOM			SIGNIFICANCE	BETWEEN GROUPS
WILKS' LAMBDA	0.5280389	2	1	9.0		
EQUIVALENT F	3.575199		2	8.0	0.0777	

---------------- VARIABLES IN THE ANALYSIS AFTER STEP 2 ----------------

VARIABLE	TOLERANCE	F TO REMOVE	WILKS' LAMBDA
TESTINT	0.6474372	4.6367	0.8340862
CUMRPT2	0.6474372	5.0072	0.8585386

-------------------- VARIABLES NOT IN THE ANALYSIS AFTER STEP 2 --------------------

VARIABLE	TOLERANCE	MINIMUM TOLERANCE	F TO ENTER	WILKS' LAMBDA
STATIC	0.2941229	0.2075738	6.0541	0.2831514
PREINT	0.8956141	0.5891703	.43350	0.4972450
CUMTRY1	0.9138296	0.5916626	.98925	0.4626560
CUMRPT1	0.4163050	0.3019935	.37163D-01	0.5252504
CUMTRY2	0.9265267	0.6016361	1.0691	0.4580790

* *

AT STEP 3. STATIC WAS INCLUDED IN THE ANALYSIS.

		DEGREES OF FREEDOM			SIGNIFICANCE	BETWEEN GROUPS
WILKS' LAMBDA	0.2831514	3	1	9.0		

---------------- VARIABLES IN THE ANALYSIS AFTER STEP 3 ----------------

VARIABLE	TOLERANCE	F TO REMOVE	WILKS' LAMBDA
STATIC	0.2941229	6.0541	0.5280389
TESTINT	0.2428380	13.356	0.8233870
CUMRPT2	0.2075738	14.217	0.8582175

-------------------- VARIABLES NOT IN THE ANALYSIS AFTER STEP 3 --------------------

VARIABLE	TOLERANCE	MINIMUM TOLERANCE	F TO ENTER	WILKS' LAMBDA
PREINT	0.8839259	0.1942265	.41105	0.2649967
CUMTRY1	0.7711032	0.2020490	.26878D-03	0.2831387
CUMRPT1	0.3991077	0.1278587	.23016	0.2726910
CUMTRY2	0.7976020	0.2022012	.72006D-02	0.2828120

F LEVEL OR TOLERANCE OR VIN INSUFFICIENT FOR FURTHER COMPUTATION.

SUMMARY TABLE

STEP	ACTION ENTERED	ACTION REMOVED	VARS IN	WILKS' LAMBDA	SIG.	LABEL
1	CUMRPT2		1	0.634086	0.2137	
2	TESTINT		2	0.528039	0.0777	
3	STATIC		3	0.283151	0.0248	

CANONICAL DISCRIMINANT FUNCTIONS

FUNCTION	EIGENVALUE	PERCENT OF VARIANCE	CUMULATIVE PERCENT	CANONICAL CORRELATION	:	AFTER FUNCTION	WILKS' LAMBDA	CHI-SQUARED	D.F.	SIGNIFICANCE
					:	0	0.2831514	9.4633	3	0.0237
1*	2.53168	100.00	100.00	0.8466691	:					

* MARKS THE 1 CANONICAL DISCRIMINANT FUNCTION(S) TO BE USED IN THE REMAINING ANALYSIS.

STANDARDIZED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS

	FUNC 1
STATIC	1.48311
TESTINT	1.94141
CUMRPT2	-9.12207

STRUCTURE MATRIX:

POOLED WITHIN-GROUPS CORRELATIONS BETWEEN CANONICAL DISCRIMINANT FUNCTIONS AND DISCRIMINATING VARIABLES
VARIABLES ARE ORDERED BY THE FUNCTION WITH LARGEST CORRELATION AND THE MAGNITUDE OF THAT CORRELATION.

	FUNC 1
CUMRPT1	-0.39215
CUMRPT2	-0.28031
PREINT	-0.27813
TESTINT	0.25511
CUMTRY1	0.14507
CUMTRY2	0.13246
STATIC	-0.06076

UNSTANDARDIZED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS

	FUNC 1
STATIC	.1114635D-01
TESTINT	.1574309
CUMRPT2	-.1672727
(CONSTANT)	-17.45358

CANONICAL DISCRIMINANT FUNCTIONS EVALUATED AT GROUP MEANS (GROUP CENTROIDS)

GROUP	FUNC 1
0	0.88134
1	-2.35025

CLASSIFICATION RESULTS FOR CASES SELECTED FOR USE IN THE ANALYSIS -

ACTUAL GROUP		NO. OF CASES	PREDICTED GROUP MEMBERSHIP 0	1
GROUP	0	8	8 100.0%	0 0.0%
GROUP	1	3	0 0.0%	3 100.0%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 100.00%

CLASSIFICATION RESULTS FOR CASES NOT SELECTED FOR USE IN THE ANALYSIS -

ACTUAL GROUP		NO. OF CASES	PREDICTED GROUP MEMBERSHIP 0	1
GROUP	0	6	3 50.0%	3 50.0%
GROUP	1	8	6 75.0%	2 25.0%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 35.71%

```
ASSIFICATION PROCESSING SUMMARY

    45 CASES WERE PROCESSED.
     0 CASES WERE EXCLUDED FOR MISSING OR OUT-OF-RANGE GROUP CODES.
    20 CASES HAD AT LEAST ONE MISSING DISCRIMINATING VARIABLE.
    25 CASES WERE USED FOR PRINTED OUTPUT.

                                                                                  PAGE   9
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:42:58   MIAMIU UNIVERSITY             IBM 4341 M2        VM/SP CMS

:CEDING TASK REQUIRED      0.50 SECONDS CPU TIME;       3.24 SECONDS ELAPSED.

:21  0          DISCRIMINANT              GROUPS=TEF(0,1)/
:22  0                                    SELECT= SET(0)/
:23  0                                    VARIABLES=STATIC PREINT TESTINT SHARE1 SHARE2/
:24  0                                    METHOD=WILKS/
:25  0          STATISTICS  1 2 11 13

:RE ARE   699936 BYTES OF MEMORY AVAILABLE.
: LARGEST CONTIGUOUS AREA HAS   699936 BYTES.

ICE ANALYSIS= WAS OMITTED FOR THE FIRST ANALYSIS ALL VARIABLES
THE VARIABLES= LIST WILL BE ENTERED AT LEVEL 1.

:S DISCRIMINANT ANALYSIS REQUIRES     1288 (    1.3K) BYTES OF WORKSPACE.

                                                                                  PAGE  10
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:42:59   MIAMIU UNIVERSITY             IBM 4341 M2        VM/SP CMS

- - - - - - - - - - - - - - - -  D I S C R I M I N A N T   A N A L Y S I S  - - - - - - - - - - - - - - - -

GROUPS DEFINED BY TEF

      45 (UNWEIGHTED) CASES WERE PROCESSED.
      33 OF THESE WERE EXCLUDED FROM THE ANALYSIS.
          0 HAD MISSING OR OUT-OF-RANGE GROUP CODES.
         18 HAD AT LEAST ONE MISSING DISCRIMINATING VARIABLE.
         15 WERE EXCLUDED BY THE SELECT= VARIABLE.
      12 (UNWEIGHTED) CASES WILL BE USED IN THE ANALYSIS.

IBER OF CASES BY GROUP

           NUMBER OF CASES
'EF    UNWEIGHTED    WEIGHTED   LABEL

    0          9         9.0
    1          3         3.0

  TOTAL       12        12.0

IUP MEANS
```

EF	STATIC	PREINT	TESTINT	SHARE1	SHARE2
0	1580.22222	41.77778	36.00000	30.66667	32.04444
1	1833.00000	25.33333	65.33333	32.06667	28.43333
TOTAL	1635.91667	37.66667	43.33333	31.01667	31.14167

UP STANDARD DEVIATIONS

EF	STATIC	PREINT	TESTINT	SHARE1	SHARE2
0	124.40737	15.76212	13.11488	25.54746	25.41762
1	346.30767	23.09401	2.30940	24.08409	21.33456
TOTAL	207.87735	18.24746	17.37989	24.09428	23.56444

- - - - - - - - - - - - - - - - - - - D I S C R I M I N A N T A N A L Y S I S -

GROUPS DEFINED BY TEF

LYSIS NUMBER 1

PWISE VARIABLE SELECTION

SELECTION RULE: MINIMIZE WILKS' LAMBDA
MAXIMUM NUMBER OF STEPS.................... 10
MINIMUM TOLERANCE LEVEL.................... 0.00100
MINIMUM F TO ENTER......................... 1.0000
MAXIMUM F TO REMOVE........................ 1.0000

ONICAL DISCRIMINANT FUNCTIONS

MAXIMUM NUMBER OF FUNCTIONS................ 1
MINIMUM CUMULATIVE PERCENT OF VARIANCE..... 100.00
MAXIMUM SIGNIFICANCE OF WILKS' LAMBDA...... 1.0000

OR PROBABILITY FOR EACH GROUP IS 0.50000

---------------- VARIABLES NOT IN THE ANALYSIS AFTER STEP 0 ----------------

IABLE	TOLERANCE	MINIMUM TOLERANCE	F TO ENTER	WILKS' LAMBDA
TIC	1.0000000	1.0000000	3.0705	0.7650804
INT	1.0000000	1.0000000	1.9921	0.8339794
TINT	1.0000000	1.0000000	13.962	0.4173355
RE1	1.0000000	1.0000000	.69106D-02	0.9993094
RE2	1.0000000	1.0000000	.48267D-01	0.9951965

* *

AT STEP 1, TESTINT WAS INCLUDED IN THE ANALYSIS

```
                                   DEGREES OF FREEDOM   SIGNIFICANCE     BETWEEN GROUPS
WILKS' LAMBDA        0.4173355       1    1      10.0
EQUIVALENT F        13.96154              1      10.0      0.0039

---------------- VARIABLES IN THE ANALYSIS AFTER STEP   1 ----------------

VARIABLE   TOLERANCE    F TO REMOVE    WILKS' LAMBDA

TESTINT    1.0000000      13.962

-------------------- VARIABLES NOT IN THE ANALYSIS AFTER STEP   1 --------------------
                        MINIMUM
VARIABLE   TOLERANCE   TOLERANCE     F TO ENTER     WILKS' LAMBDA

STATIC     0.9957267   0.9957267      1.5037          0.3575917
PREINT     0.9857885   0.9857885      .35554          0.4014752
SHARE1     0.9555073   0.9555073      .29841          0.4039421
SHARE2     0.8993836   0.8993836      .38933          0.4000308

* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

AT STEP  2. STATIC    WAS INCLUDED IN THE ANALYSIS.

                                   DEGREES OF FREEDOM   SIGNIFICANCE     BETWEEN GROUPS
WILKS' LAMBDA        0.3575917       2    1      10.0
EQUIVALENT F         6.084184             2       9.0      0.0098

---------------- VARIABLES IN THE ANALYSIS AFTER STEP   2 ----------------

VARIABLE   TOLERANCE    F TO REMOVE    WILKS' LAMBDA

STATIC     0.9957267      1.5037       0.4173355
TESTINT    0.9957267      10.256       0.7650804

-------------------- VARIABLES NOT IN THE ANALYSIS AFTER STEP   2 --------------------
                        MINIMUM
VARIABLE   TOLERANCE   TOLERANCE     F TO ENTER     WILKS' LAMBDA

PREINT     0.7763215   0.7763215      1.3048          0.3074467
SHARE1     0.9498437   0.9493529      .31449          0.3440660
SHARE2     0.8920340   0.8919687      .41463          0.3399714

* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

AT STEP  3. PREINT    WAS INCLUDED IN THE ANALYSIS.

                                   DEGREES OF FREEDOM   SIGNIFICANCE     BETWEEN GROUPS
WILKS' LAMBDA        0.3074467       3    1      10.0
EQUIVALENT F         6.006925             3       8.0      0.0191

---------------- VARIABLES IN THE ANALYSIS AFTER STEP   3 ----------------

VARIABLE   TOLERANCE    F TO REMOVE    WILKS' LAMBDA
```

STATI	0.7841490	2.4467	0.4014752
PREIN	0.7763215	1.3048	0.3575917
TESTINI	0.9856610	5.4231	0.5158603

------------------- VARIABLES NOT IN THE ANALYSIS AFTER STEP 3 -------------------

VARIABLE	TOLERANCE	MINIMUM TOLERANCE	F TO ENTER	WILKS' LAMBDA
SHARE1	0.4448296	0.3635659	.11895	0.3023096
SHARE2	0.3498259	0.3044473	.11670	0.3024051

F LEVEL OR TOLERANCE OR VIN INSUFFICIENT FOR FURTHER COMPUTATION.

SUMMARY TABLE

STEP	ACTION ENTERED	REMOVED	VARS IN	WILKS' LAMBDA	SIG.	LABEL
1	TESTINT		1	0.417335	0.0039	
2	STATIC		2	0.357592	0.0098	
3	PREINT		3	0.307447	0.0191	

CANONICAL DISCRIMINANT FUNCTIONS

FUNCTION	EIGENVALUE	PERCENT OF VARIANCE	CUMULATIVE PERCENT	CANONICAL CORRELATION	:	AFTER FUNCTION	WILKS' LAMBDA	CHI-SQUARED	D.F.	SIGNIFICANCE
					:	0	0.3074467	10.025	3	0.0184
1*	2.25260	100.00	100.00	0.8321979	:					

* MARKS THE 1 CANONICAL DISCRIMINANT FUNCTION(S) TO BE USED IN THE REMAINING ANALYSIS.

STANDARDIZED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS

	FUNC 1
STATIC	0.65671
PREINT	-0.51071
TESTINT	0.76932

STRUCTURE MATRIX:

POOLED WITHIN-GROUPS CORRELATIONS BETWEEN CANONICAL DISCRIMINANT FUNCTIONS AND DISCRIMINATING VARIABLES
VARIABLES ARE ORDERED BY THE FUNCTION WITH LARGEST CORRELATION AND THE MAGNITUDE OF THAT CORRELATION.

	FUNC 1
TESTINT	0.78727
STATIC	0.36920
PREINT	-0.29738
SHARE1	0.12199
SHARE2	0.04548

UNSTANDARDIZED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS

	FUNC 1
STATIC	.3443641D-02
PREINT	-.2922285D-01
TESTINT	.6533119D-01
(CONSTANT)	-7.363800

CANONICAL DISCRIMINANT FUNCTIONS EVALUATED AT GROUP MEANS (GROUP CENTROIDS)

GROUP	FUNC 1
0	-0.79103
1	2.37308

CLASSIFICATION RESULTS FOR CASES SELECTED FOR USE IN THE ANALYSIS -

ACTUAL GROUP	NO. OF CASES	PREDICTED GROUP MEMBERSHIP 0	1
GROUP 0	15	13 86.7%	2 13.3%
GROUP 1	7	3 42.9%	4 57.1%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 77.27%

CLASSIFICATION RESULTS FOR CASES NOT SELECTED FOR USE IN THE ANALYSIS -

ACTUAL GROUP	NO. OF CASES	PREDICTED GROUP MEMBERSHIP 0	1
GROUP 0	9	8 88.9%	1 11.1%
GROUP 1	12	7 58.3%	5 41.7%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 61.90%

CLASSIFICATION PROCESSING SUMMARY

45 CASES WERE PROCESSED.
0 CASES WERE EXCLUDED FOR MISSING OR OUT-OF-RANGE GROUP CODES.
2 CASES HAD AT LEAST ONE MISSING DISCRIMINATING VARIABLE.
43 CASES WERE USED FOR PRINTED OUTPUT.

PRECEDING TASK REQUIRED 0.46 SECONDS CPU TIME; 3.70 SECONDS ELAPSED.

```
 26  0          DISCRIMINANT          GROUPS=TEF(0,1)/
 27  0                                SELECT= SET(0)/
 28  0                                VARIABLES=STATIC PREINT TESTINT SHARE1 SHARE2
 29  0                                         SHARE3 SHARE4/
 30  0                                METHOD=WILKS/
 31  0          STATISTICS  1 2 11 13
```

THERE ARE 699856 BYTES OF MEMORY AVAILABLE.
THE LARGEST CONTIGUOUS AREA HAS 699856 BYTES.

SINCE ANALYSIS= WAS OMITTED FOR THE FIRST ANALYSIS ALL VARIABLES
ON THE VARIABLES= LIST WILL BE ENTERED AT LEVEL 1.

THIS DISCRIMINANT ANALYSIS REQUIRES 2040 (2.0K) BYTES OF WORKSPACE.

- D I S C R I M I N A N T   A N A L Y S I S -

ON GROUPS DEFINED BY TEF

```
45 (UNWEIGHTED) CASES WERE PROCESSED.
35 OF THESE WERE EXCLUDED FROM THE ANALYSIS.
    0 HAD MISSING OR OUT-OF-RANGE GROUP CODES.
   23 HAD AT LEAST ONE MISSING DISCRIMINATING VARIABLE.
   12 WERE EXCLUDED BY THE SELECT= VARIABLE.
10 (UNWEIGHTED) CASES WILL BE USED IN THE ANALYSIS.
```

NUMBER OF CASES BY GROUP

TEF	NUMBER OF CASES UNWEIGHTED	WEIGHTED	LABEL
0	7	7.0	
1	3	3.0	
TOTAL	10	10.0	

GROUP MEANS

TEF	STATIC	PREINT	TESTINT	SHARE1	SHARE2	SHARE3	SHARE4
0	1602.85714	38.85714	31.42857	36.25714	38.61429	40.57143	44.58571
1	1803.00000	25.33333	65.33333	32.06667	28.43333	29.70000	28.66667
TOTAL	1662.90000	34.80000	41.60000	35.00000	35.56000	37.31000	39.81000

GROUP STANDARD DEVIATIONS

GROUP STANDARD DEVIATIONS

TEF	STATIC	PREINT	TESTINT	SHARE1	SHARE2	SHARE3	SHARE4
0	128.08256	16.92561	10.93705	26.48275	25.15554	21.02155	22.78826
1	346.30767	23.09401	2.30940	24.08409	21.33456	20.22894	18.29654
TOTAL	216.64331	18.76640	18.68570	24.50619	23.39232	20.32527	21.90264

- - - - - - - - - - - - - - - - - - - D I S C R I M I N A N T A N A L Y S I S - - - - - - - - - - - - - - - - - - -

ON GROUPS DEFINED BY TEF

ANALYSIS NUMBER 1

STEPWISE VARIABLE SELECTION

SELECTION RULE: MINIMIZE WILKS' LAMBDA
MAXIMUM NUMBER OF STEPS.................. 14
MINIMUM TOLERANCE LEVEL.................. 0.00100
MINIMUM F TO ENTER....................... 1.0000
MAXIMUM F TO REMOVE...................... 1.0000

CANONICAL DISCRIMINANT FUNCTIONS

MAXIMUM NUMBER OF FUNCTIONS.............. 1
MINIMUM CUMULATIVE PERCENT OF VARIANCE... 100.00
MAXIMUM SIGNIFICANCE OF WILKS' LAMBDA.... 1.0000

PRIOR PROBABILITY FOR EACH GROUP IS 0.50000

-------------------- VARIABLES NOT IN THE ANALYSIS AFTER STEP 0 --------------------

VARIABLE	TOLERANCE	MINIMUM TOLERANCE	F TO ENTER	WILKS' LAMBDA
STATIC	1.0000000	1.0000000	1.9893	0.8008564
PREINT	1.0000000	1.0000000	1.1031	0.8788250
TESTINT	1.0000000	1.0000000	26.514	0.2317913
SHARE1	1.0000000	1.0000000	.549560D-01	0.9931774
SHARE2	1.0000000	1.0000000	.36994	0.9558015
SHARE3	1.0000000	1.0000000	.57223	0.9332460
SHARE4	1.0000000	1.0000000	1.1247	0.8767411

* *

AT STEP 1, TESTINT WAS INCLUDED IN THE ANALYSIS.

		DEGREES OF FREEDOM			SIGNIFICANCE	BETWEEN GROUPS
WILKS' LAMBDA	0.2317913	1	1	8.0		
EQUIVALENT F	26.51381		1	8.0	0.0009	

---------------- VARIABLES IN THE ANALYSIS AFTER STEP 1 ----------------

VARIABLE	TOLERANCE	F TO REMOVE	WILKS' LAMBDA
TESTINT	1.0000000	26.514	

-------------------- VARIABLES NOT IN THE ANALYSIS AFTER STEP 1 --------------------

VARIABLE	TOLERANCE	MINIMUM TOLERANCE	F TO ENTER	WILKS' LAMBDA
STATIC	0.9869758	0.9869758	.13911	0.2272745
PREINT	0.7814460	0.7814460	.47790	0.2169780
SHARE1	0.9919366	0.9919366	.992760D-01	0.2285499
SHARE2	0.9998159	0.9998159	.932740D-01	0.2287433
SHARE3	0.9989743	0.9989743	.710450D-01	0.2294624
SHARE4	0.9883630	0.9883630	.523440D-01	0.2300709

F LEVEL OR TOLERANCE OR VIN INSUFFICIENT FOR FURTHER COMPUTATION.

SUMMARY TABLE

STEP	ACTION ENTERED	REMOVED	VARS IN	WILKS' LAMBDA	SIG.	LABEL
1	TESTINT		1	0.231791	0.0009	

CANONICAL DISCRIMINANT FUNCTIONS

FUNCTION	EIGENVALUE	PERCENT OF VARIANCE	CUMULATIVE PERCENT	CANONICAL CORRELATION	:	AFTER FUNCTION	WILKS' LAMBDA	CHI-SQUARED	D.F.	SIGNIFICANCE
					:	0	0.2317913	10.964	1	0.0009
1*	3.31423	100.00	100.00	0.8764752	:					

* MARKS THE 1 CANONICAL DISCRIMINANT FUNCTION(S) TO BE USED IN THE REMAINING ANALYSIS.

STANDARDIZED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS

	FUNC 1
TESTINT	1.00000

STRUCTURE MATRIX:

POOLED WITHIN-GROUPS CORRELATIONS BETWEEN CANONICAL DISCRIMINANT FUNCTIONS AND DISCRIMINATING VARIABLES
VARIABLES ARE ORDERED BY THE FUNCTION WITH LARGEST CORRELATION AND THE MAGNITUDE OF THAT CORRELATION.

	FUNC 1
PREINT	-0.46750
SHARE4	-0.10787
SHARE1	0.08980
SHARE3	-0.03203

```
SHARE2         0.01357
TESTINT        0.00000
STATIC         0.00000
```

UNSTANDARDIZED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS

	FUNC 1
TESTINT	.1048011
(CONSTANT)	-4.359724

CANONICAL DISCRIMINANT FUNCTIONS EVALUATED AT GROUP MEANS (GROUP CENTROIDS)

GROUP	FUNC 1
0	-1.06598
1	2.48728

CLASSIFICATION RESULTS FOR CASES SELECTED FOR USE IN THE ANALYSIS -

ACTUAL GROUP		NO. OF CASES	PREDICTED GROUP MEMBERSHIP 0	1
GROUP	0	16	12 75.0%	4 25.0%
GROUP	1	8	5 62.5%	3 37.5%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 62.50%

CLASSIFICATION RESULTS FOR CASES NOT SELECTED FOR USE IN THE ANALYSIS -

ACTUAL GROUP		NO. OF CASES	PREDICTED GROUP MEMBERSHIP 0	1
GROUP	0	9	6 66.7%	3 33.3%
GROUP	1	12	10 83.3%	2 16.7%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 38.10%

CLASSIFICATION PROCESSING SUMMARY

```
45 CASES WERE PROCESSED.
 0 CASES WERE EXCLUDED FOR MISSING OR OUT-OF-RANGE GROUP CODES.
 0 CASES HAD AT LEAST ONE MISSING DISCRIMINATING VARIABLE.
45 CASES WERE USED FOR PRINTED OUTPUT.
```

```
04 NOV 85    SPSS-X RELEASE 2.0   FOR IBM VM/CMS                                                PAGE  17
15:43:04     MIAMIU UNIVERSITY                 IBM 4341 M2       VM/SP CMS

PRECEDING TASK REQUIRED        0.40 SECONDS CPU TIME;          2.04 SECONDS ELAPSED.

  32  0            DISCRIMINANT                 GROUPS=TEF(0,1)/
  33  0                                         SELECT= SET(0)/
  34  0                                         VARIABLES=STATIC PREINT TESTINT VOL/
  35  0                                         METHOD=WILKS/
  36  0            STATISTICS  1 2 11 13

THERE ARE    699976 BYTES OF MEMORY AVAILABLE.
THE LARGEST CONTIGUOUS AREA HAS    699976 BYTES.

SINCE ANALYSIS= WAS OMITTED FOR THE FIRST ANALYSIS ALL VARIABLES
ON THE VARIABLES= LIST WILL BE ENTERED AT LEVEL 1.

THIS DISCRIMINANT ANALYSIS REQUIRES         968 (        0.9K) BYTES OF WORKSPACE.

04 NOV 85    SPSS-X RELEASE 2.0   FOR IBM VM/CMS                                                PAGE  18
15:43:06     MIAMIU UNIVERSITY                 IBM 4341 M2       VM/SP CMS

- - - - - - - - - - - - - - - - - - - - - - - D I S C R I M I N A N T   A N A L Y S I S - - - - - - - - - - - - - - - - - -

ON GROUPS DEFINED BY TEF

          45 (UNWEIGHTED) CASES WERE PROCESSED.
          23 OF THESE WERE EXCLUDED FROM THE ANALYSIS.
              0 HAD MISSING OR OUT-OF-RANGE GROUP CODES.
              2 HAD AT LEAST ONE MISSING DISCRIMINATING VARIABLE.
             21 WERE EXCLUDED BY THE SELECT= VARIABLE.
          22 (UNWEIGHTED) CASES WILL BE USED IN THE ANALYSIS.

NUMBER OF CASES BY GROUP

                 NUMBER OF CASES
  TEF        UNWEIGHTED     WEIGHTED  LABEL

        0           15          15.0
        1            7           7.0

     TOTAL          22          22.0

GROUP MEANS

  TEF            STATIC          PREINT          TESTINT         VOL

        0      1627.40000       40.26667        35.20000         7.40667
        1      1783.28571       36.00000        44.57143        17.10000

     TOTAL     1677.00000       38.90909        38.18182        10.49091

GROUP STANDARD DEVIATIONS
```

TEF	STATIC	PREINT	TESTINT	VOL
0	156.60633	16.31593	11.63247	6.37523
1	264.65809	19.18333	20.18958	15.05811
TOTAL	204.66000	16.93379	15.05430	10.64120

- - - - - - - - - - - - D I S C R I M I N A N T   A N A L Y S I S - - - - - - - - - - - -

ON GROUPS DEFINED BY TEF

ANALYSIS NUMBER 1

STEPWISE VARIABLE SELECTION

SELECTION RULE: MINIMIZE WILKS' LAMBDA
MAXIMUM NUMBER OF STEPS.................. 8
MINIMUM TOLERANCE LEVEL.................. 0.00100
MINIMUM F TO ENTER....................... 1.0000
MAXIMUM F TO REMOVE...................... 1.0000

CANONICAL DISCRIMINANT FUNCTIONS

MAXIMUM NUMBER OF FUNCTIONS.............. 1
MINIMUM CUMULATIVE PERCENT OF VARIANCE... 100.00
MAXIMUM SIGNIFICANCE OF WILKS' LAMBDA.... 1.0000

PRIOR PROBABILITY FOR EACH GROUP IS 0.50000

------------------ VARIABLES NOT IN THE ANALYSIS AFTER STEP 0 ------------------

VARIABLE	TOLERANCE	MINIMUM TOLERANCE	F TO ENTER	WILKS' LAMBDA
STATIC	1.0000000	1.0000000	3.0376	0.8681458
PREINT	1.0000000	1.0000000	.29279	0.9855717
TESTINT	1.0000000	1.0000000	1.9316	0.9119280
VOL	1.0000000	1.0000000	4.6484	0.8114127

* *

AT STEP 1, VOL WAS INCLUDED IN THE ANALYSIS.

		DEGREES OF FREEDOM			SIGNIFICANCE	BETWEEN GROUPS
WILKS' LAMBDA	0.8114127	1	1	20.0		
EQUIVALENT F	4.648363		1	20.0	0.0434	

---------------- VARIABLES IN THE ANALYSIS AFTER STEP 1 ----------------

VARIABLE	TOLERANCE	F TO REMOVE	WILKS' LAMBDA
VOL	1.0000000	4.6484	

------------------- VARIABLES NOT IN THE ANALYSIS AFTER STEP 1 -------------------

VARIABLE	TOLERANCE	MINIMUM TOLERANCE	F TO ENTER	WILKS' LAMBDA
STATIC	0.8164163	0.8164163	6.7141	0.5995489
PREINT	0.8757611	0.8757611	1.4899	0.7524111
TESTINT	0.8804136	0.8804136	3.9923	0.6705206

* *

AT STEP 2. STATIC WAS INCLUDED IN THE ANALYSIS.

		DEGREES OF FREEDOM			SIGNIFICANCE	BETWEEN GROUPS
WILKS' LAMBDA	0.5995489	2	1	20.0		
EQUIVALENT F	6.345246		2	19.0	0.0078	

--------------- VARIABLES IN THE ANALYSIS AFTER STEP 2 ---------------

VARIABLE	TOLERANCE	F TO REMOVE	WILKS' LAMBDA
STATIC	0.8164163	6.7141	0.8114127
VOL	0.8164163	8.5120	0.6681458

------------------- VARIABLES NOT IN THE ANALYSIS AFTER STEP 2 -------------------

VARIABLE	TOLERANCE	MINIMUM TOLERANCE	F TO ENTER	WILKS' LAMBDA
PREINT	0.7167296	0.6119584	4.6228	0.4770355
TESTINT	0.8624781	0.7046610	4.0066	0.4903932

* *

AT STEP 3. PREINT WAS INCLUDED IN THE ANALYSIS.

		DEGREES OF FREEDOM			SIGNIFICANCE	BETWEEN GROUPS
WILKS' LAMBDA	0.4770355	3	1	20.0		
EQUIVALENT F	6.577680		3	18.0	0.0034	

--------------- VARIABLES IN THE ANALYSIS AFTER STEP 3 ---------------

VARIABLE	TOLERANCE	F TO REMOVE	WILKS' LAMBDA
STATIC	0.6681614	10.391	0.7524111
PREINT	0.7167296	4.6228	0.5995489
VOL	0.6119584	13.591	0.8369657

------------------- VARIABLES NOT IN THE ANALYSIS AFTER STEP 3 -------------------

VARIABLE	TOLERANCE	MINIMUM TOLERANCE	F TO ENTER	WILKS' LAMBDA
TESTINT	0.8053343	0.5828429	1.6879	0.4339500

AT STEP 4, TESTINT WAS INCLUDED IN THE ANALYSIS.

		DEGREES OF FREEDOM			SIGNIFICANCE	BETWEEN GROUPS
WILKS' LAMBDA	0.4339500	4	1	20.0		
EQUIVALENT F	5.543756		4	17.0	0.0048	

---------------- VARIABLES IN THE ANALYSIS AFTER STEP 4 ----------------

VARIABLE	TOLERANCE	F TO REMOVE	WILKS' LAMBDA
STATIC	0.6678529	8.7683	0.6577727
PREINT	0.6692425	2.2112	0.4903932
TESTINT	0.8053343	1.6879	0.4770355
VOL	0.5828429	14.302	0.7990423

F LEVEL OR TOLERANCE OR VIN INSUFFICIENT FOR FURTHER COMPUTATION.

SUMMARY TABLE

STEP	ACTION ENTERED	ACTION REMOVED	VARS IN	WILKS' LAMBDA	SIG.	LABEL
1	VOL		1	0.811413	0.0434	
2	STATIC		2	0.599549	0.0078	
3	PREINT		3	0.477035	0.0034	
4	TESTINT		4	0.433950	0.0048	

CANONICAL DISCRIMINANT FUNCTIONS

FUNCTION	EIGENVALUE	PERCENT OF VARIANCE	CUMULATIVE PERCENT	CANONICAL CORRELATION	:	AFTER FUNCTION	WILKS' LAMBDA	CHI-SQUARED	D.F.	SIGNIFICANCE
					:	0	0.4339500	15.027	4	0.0046
1*	1.30441	100.00	100.00	0.7523630	:					

* MARKS THE 1 CANONICAL DISCRIMINANT FUNCTION(S) TO BE USED IN THE REMAINING ANALYSIS.

STANDARDIZED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS

	FUNC 1
STATIC	0.94874
PREINT	-0.55121
TESTINT	0.44512
VOL	1.17683

STRUCTURE MATRIX:

POOLED WITHIN-GROUPS CORRELATIONS BETWEEN CANONICAL DISCRIMINANT FUNCTIONS AND DISCRIMINATING VARIABLES

VARIABLES ARE ORDERED BY THE FUNCTION WITH LARGEST CORRELATION AND THE MAGNITUDE OF THAT CORRELATION.

	FUNC 1
VOL	0.42211
STATIC	0.34123
TESTINT	0.27210
PREINT	-0.10594

UNSTANDARDIZED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS

	FUNC 1
STATIC	.4855371D-02
PREINT	-.3199791D-01
TESTINT	.3021616D-01
VOL	.1198139
(CONSTANT)	-9.308112

CANONICAL DISCRIMINANT FUNCTIONS EVALUATED AT GROUP MEANS (GROUP CENTROIDS)

GROUP	FUNC 1
0	-0.74390
1	1.59407

CLASSIFICATION RESULTS FOR CASES SELECTED FOR USE IN THE ANALYSIS -

ACTUAL GROUP		NO. OF CASES	PREDICTED GROUP MEMBERSHIP 0	1
GROUP	0	15	13 86.7%	2 13.3%
GROUP	1	7	0 0.0%	7 100.0%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 90.91%

CLASSIFICATION RESULTS FOR CASES NOT SELECTED FOR USE IN THE ANALYSIS -

ACTUAL GROUP		NO. OF CASES	PREDICTED GROUP MEMBERSHIP 0	1
GROUP	0	9	7 77.8%	2 22.2%
GROUP	1	12	5 41.7%	7 58.3%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 66.67%

CLASSIFICATION PROCESSING SUMMARY

```
45 CASES WERE PROCESSED.
 0 CASES WERE EXCLUDED FOR MISSING OR OUT-OF-RANGE GROUP CODES.
 2 CASES HAD AT LEAST ONE MISSING DISCRIMINATING VARIABLE.
43 CASES WERE USED FOR PRINTED OUTPUT.
```



```
PRECEDING TASK REQUIRED      0.50 SECONDS CPU TIME;      3.90 SECONDS ELAPSED.

   36 COMMAND LINES READ.
    0 ERRORS DETECTED.
    0 WARNINGS ISSUED.
    3 SECONDS CPU TIME.
   19 SECONDS ELAPSED TIME.
      END OF JOB.
```

Appendix VII

Single Source Database.

BANNER/COTTONELLE/CHARMIN AVG 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	155.	91.	52.	24.	20.	10.	7.	7.	4.	13.	383.
X -----> O	152.	91.	48.	34.	19.	10.	7.	5.	3.	14.	383.
X -----> X	119.	53.	41.	31.	16.	9.	6.	4.	3.	5.	287.
O -----> O	3383.	1854.	1015.	791.	554.	315.	173.	122.	71.	295.	8573.
O <-----> O	459.	217.	93.	118.	54.	8.	27.	54.	26.	38.	1094.
TOTAL	4268.	2306.	1249.	998.	663.	352.	220.	192.	107.	365.	10720.
TRIAL (COL/MCD REG)	0.039	0.042	0.045	0.026	0.032	0.030	0.034	0.038	0.040	0.038	
TRIAL (COL/MCD ASC)	0.039	0.040	0.041	0.039	0.039	0.038	0.038	0.038	0.038	0.038	
TRIAL (COL/MCD DEC)	0.038	0.038	0.035	0.031	0.034	0.035	0.037	0.038	0.038	0.038	
NET (COL/MCD REG)	0.505	0.500	0.520	0.414	0.513	0.500	0.500	0.583	0.571	0.481	
NET (COL/MCD ASC)	0.505	0.503	0.508	0.498	0.499	0.499	0.499	0.500	0.501	0.500	
NET (COL/MCD DEC)	0.500	0.497	0.495	0.480	0.513	0.512	0.517	0.522	0.500	0.481	
REPEAT (COL/MCD REG)	0.439	0.368	0.461	0.477	0.457	0.474	0.462	0.444	0.500	0.263	
REPEAT (COL/MCD ASC)	0.439	0.414	0.423	0.429	0.430	0.432	0.432	0.433	0.433	0.428	
REPEAT (COL/MCD DEC)	0.428	0.421	0.451	0.446	0.426	0.409	0.383	0.353	0.320	0.263	
GAIN (% OF POP REG)	0.001	0.000	0.003	-0.010	0.002	0.000	0.000	0.010	0.069	-0.003	
GAIN (% OF POP ASC)	0.001	0.000	0.001	-0.000	-0.000	-0.000	-0.000	0.000	0.000	0.000	
GAIN (% OF POP DEC)	0.000	-0.000	-0.001	-0.002	0.002	0.002	0.002	0.003	0.000	-0.003	
TRIAL (% OF POP REG)	0.036	0.039	0.042	0.024	0.030	0.028	0.032	0.036	0.037	0.036	
TRIAL (% OF POP ASC)	0.036	0.037	0.038	0.037	0.036	0.036	0.036	0.036	0.036	0.036	
TRIAL (% OF POP DEC)	0.036	0.035	0.033	0.029	0.032	0.033	0.035	0.036	0.036	0.036	
NET (% OF POP REG)	0.064	0.062	0.074	0.055	0.054	0.054	0.059	0.057	0.065	0.049	
NET (% OF POP ASC)	0.064	0.064	0.065	0.064	0.063	0.063	0.063	0.063	0.063	0.063	
NET (% CF POP DEC)	0.063	0.061	0.061	0.055	0.055	0.055	0.055	0.054	0.053	0.049	
REPEAT (% OF POP REG)	0.028	0.023	0.033	0.031	0.024	0.026	0.027	0.021	0.028	0.014	
REPEAT (% OF POP ASC)	0.028	0.026	0.027	0.028	0.027	0.027	0.027	0.027	0.027	0.027	
REPEAT (% OF POP DEC)	0.027	0.026	0.028	0.026	0.023	0.022	0.020	0.018	0.017	0.014	

IV

BANNER/COTTONELLE/CHARMIN AVG 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
0 -----> X	33.	19.	23.	34.	94.	160.	16.	3.	1.	0.	0.	383.
X -----> 0	32.	16.	29.	41.	96.	151.	12.	5.	0.	0.	1.	383.
X -----> X	21.	14.	30.	42.	53.	122.	5.	0.	0.	0.	0.	287.
0 -----> 0	927.	512.	771.	1000.	1824.	3358.	143.	30.	8.	0.	0.	8573.
0 <----> 0	145.	53.	116.	85.	215.	461.	16.	1.	2.	0.	0.	1094.
TOTAL	1158.	614.	969.	1202.	2282.	4252.	192.	39.	11.	0.	1.	10720.
TRIAL (COL/MCD REG)	0.030	0.033	0.025	0.030	0.044	0.040	0.091	0.088	0.091	0.000	0.000	
TRIAL (COL/MCD ASC)	0.030	0.031	0.029	0.029	0.035	0.037	0.038	0.038	0.038	0.038	0.038	
TRIAL (COL/MCD DEC)	0.038	0.039	0.040	0.041	0.043	0.043	0.091	0.089	0.091	0.000	0.000	
NET (COL/MCD REG)	0.508	0.543	0.442	0.453	0.495	0.514	0.571	0.375	1.000	0.000	0.000	
NET (COL/MCD ASC)	0.508	0.520	0.493	0.480	0.487	0.499	0.501	0.500	0.501	0.501	0.500	
NET (COL/MCD DEC)	0.500	0.499	0.497	0.502	0.508	0.516	0.526	0.400	0.500	0.000	0.000	
REPEAT (COL/MCD REG)	0.396	0.467	0.508	0.506	0.356	0.447	0.294	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.396	0.422	0.458	0.476	0.428	0.436	0.432	0.429	0.429	0.429	0.428	
REPEAT (COL/MCD DEC)	0.428	0.431	0.429	0.420	0.404	0.429	0.217	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.001	0.005	-0.006	-0.006	-0.001	0.002	0.021	-0.051	0.091	0.000	-1.000	
GAIN (% OF POP ASC)	0.001	0.002	-0.001	-0.002	-0.002	-0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP DEC)	0.000	-0.000	-0.000	0.000	0.001	0.002	0.008	-0.039	0.000	-1.000	-1.000	
TRIAL (% OF POP REG)	0.028	0.031	0.024	0.028	0.041	0.038	0.083	0.077	0.091	0.000	0.000	
TRIAL (% OF POP ASC)	0.028	0.029	0.027	0.028	0.033	0.035	0.036	0.036	0.036	0.036	0.036	
TRIAL (% OF POP DEC)	0.036	0.037	0.037	0.039	0.040	0.040	0.082	0.078	0.083	0.000	0.000	
NET (% OF POP REG)	0.047	0.054	0.055	0.063	0.064	0.066	0.109	0.077	0.091	0.000	0.000	
NET (% OF POP ASC)	0.047	0.049	0.051	0.055	0.058	0.062	0.062	0.062	0.063	0.063	0.063	
NET (% OF POP DEC)	0.063	0.064	0.065	0.066	0.067	0.068	0.103	0.078	0.083	0.000	0.000	
REPEAT (% OF POP REG)	0.018	0.023	0.031	0.035	0.023	0.029	0.026	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.018	0.020	0.024	0.027	0.026	0.027	0.027	0.027	0.027	0.027	0.027	
REPEAT (% OF POP DEC)	0.027	0.028	0.028	0.028	0.027	0.028	0.021	0.000	0.000	0.000	0.000	

BANNER/COTTONELLE/CHARMIN AVG 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	4.	2.	21.	44.	25.	245.	25.	12.	4.	1.	0.	383.
X -----> O	2.	3.	26.	37.	37.	241.	25.	7.	3.	1.	1.	383.
X -----> X	2.	5.	16.	40.	27.	183.	14.	0.	0.	0.	0.	287.
O -----> O	87.	134.	610.	1412.	323.	5678.	246.	58.	21.	3.	1.	8573.
O <----> O	29.	24.	38.	152.	40.	771.	31.	6.	2.	1.	0.	1094.
TOTAL	124.	168.	711.	1685.	452.	7118.	341.	83.	30.	6.	2.	10720.
TRIAL (COL/MCD REG)	0.033	0.012	0.031	0.027	0.064	0.037	0.083	0.158	0.148	0.200	0.000	
TRIAL (COL/MCD ASC)	0.033	0.021	0.028	0.028	0.033	0.035	0.037	0.038	0.038	0.038	0.038	
TRIAL (COL/MCD DEC)	0.038	0.038	0.039	0.039	0.042	0.040	0.102	0.156	0.152	0.167	0.000	
T STATISTICS	0.275	1.479	1.633	3.163	1.858	6.921	6.433	3.357	0.000	0.000		
NET (COL/MCD REG)	0.667	0.400	0.447	0.543	0.403	0.504	0.500	0.632	0.571	0.500	0.000	
NET (COL/MCD ASC)	0.667	0.545	0.466	0.511	0.478	0.496	0.497	0.500	0.501	0.501	0.500	
NET (COL/MCD DEC)	0.500	0.499	0.499	0.503	0.498	0.508	0.532	0.586	0.500	0.333	0.000	
REPEAT (COL/MCD REG)	0.500	0.625	0.381	0.519	0.422	0.432	0.359	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.500	0.583	0.426	0.481	0.462	0.441	0.436	0.432	0.430	0.429	0.428	
REPEAT (COL/MCD DEC)	0.428	0.428	0.426	0.429	0.416	0.415	0.275	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.035	-1.127	-0.871	-2.310	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.016	-0.006	-0.007	0.004	-0.027	0.001	0.000	0.060	0.033	0.000	-0.500	
GAIN (% OF POP ASC)	0.016	0.003	-0.004	0.001	-0.003	-0.000	-0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP DEC)	0.000	-0.000	-0.000	0.000	-0.000	0.001	0.011	0.041	0.000	-0.125	-0.500	
TRIAL (% OF POP REG)	0.032	0.012	0.030	0.026	0.055	0.034	0.073	0.145	0.133	0.167	0.000	
TRIAL (% CF POP ASC)	0.032	0.021	0.027	0.026	0.031	0.033	0.035	0.035	0.036	0.036	0.036	
TRIAL (% OF POP DEC)	0.036	0.036	0.036	0.037	0.039	0.038	0.091	0.140	0.132	0.125	0.000	
T STATISTICS	0.209	1.417	1.579	3.005	1.850	6.494	6.094	2.929	0.000	0.000		
NET (% OF POP REG)	0.048	0.042	0.052	0.050	0.115	0.060	0.114	0.145	0.133	0.167	0.000	
NET (% OF POP ASC)	0.048	0.045	0.050	0.050	0.059	0.060	0.062	0.062	0.062	0.063	0.063	
NET (% CF POP DEC)	0.063	0.063	0.063	0.064	0.067	0.064	0.121	0.140	0.132	0.125	0.000	
T STATISTICS	0.653	1.287	1.738	3.130	0.899	5.298	3.477	1.618	0.000	0.000		
REPEAT (% OF POP REG)	0.016	0.030	0.023	0.024	0.060	0.026	0.041	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.016	0.024	0.023	0.023	0.029	0.027	0.027	0.027	0.027	0.027	0.027	
REPEAT (% OF POP DEC)	0.027	0.027	0.027	0.027	0.028	0.026	0.030	0.000	0.000	0.000	0.000	
T STATISTICS	0.739	0.301	0.792	1.237	-0.780	0.478	-1.789	-0.940	0.000	0.000		

BANNER/COTTONELLE/CHARMIN AVG 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	309.	4.	9.	21.	1.	20.	4.	1.	0.	14.	383.
X -----> O	317.	7.	11.	16.	4.	11.	3.	2.	1.	11.	383.
X -----> X	252.	3.	13.	6.	1.	7.	1.	0.	0.	4.	287.
O -----> O	7996.	41.	123.	93.	32.	108.	34.	12.	2.	132.	8573.
O <----> O	1025.	9.	13.	13.	2.	13.	6.	2.	0.	11.	1094.
TOTAL	9899.	64.	169.	149.	40.	159.	48.	17.	3.	172.	10720.
TRIAL (COL/MCD REG)	0.033	0.074	0.062	0.165	0.029	0.142	0.091	0.067	0.000	0.089	
TRIAL (COL/MCD ASC)	0.033	0.033	0.034	0.036	0.035	0.037	0.037	0.037	0.037	0.038	
TRIAL (COL/MCD DEC)	0.038	0.103	0.105	0.117	0.102	0.109	0.087	0.086	0.088	0.089	
T STATISTICS	9.406	9.345	9.669	6.707	7.107	3.824	3.343	3.315	3.368		
NET (COL/MCD REG)	0.494	0.364	0.450	0.568	0.200	0.645	0.571	0.333	0.000	0.560	
NET (COL/MCD ASC)	0.494	0.491	0.490	0.494	0.492	0.499	0.499	0.499	0.498	0.500	
NET (COL/MCD DEC)	0.500	0.529	0.543	0.560	0.556	0.582	0.528	0.517	0.538	0.560	
REPEAT (COL/MCD REG)	0.443	0.300	0.542	0.273	0.200	0.389	0.250	0.000	0.000	0.267	
REPEAT (COL/MCD ASC)	0.443	0.440	0.444	0.438	0.437	0.435	0.434	0.433	0.432	0.428	
REPEAT (COL/MCD DEC)	0.428	0.347	0.352	0.284	0.289	0.300	0.227	0.222	0.250	0.267	
T STATISTICS	-1.803	0.000	-1.482	-1.278	-1.094	-1.636	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.001	-0.047	-0.012	0.034	-0.075	0.057	0.021	-0.059	-0.333	0.017	
GAIN (% OF POP ASC)	-0.001	-0.001	-0.001	-0.001	-0.001	-0.000	-0.000	-0.000	-0.000	0.000	
GAIN (% OF POP DEC)	0.000	0.010	0.015	0.022	0.018	0.028	0.008	0.005	0.011	0.017	
TRIAL (% OF POP REG)	0.031	0.063	0.053	0.141	0.025	0.126	0.083	0.059	0.000	0.081	
TRIAL (% OF POP ASC)	0.031	0.031	0.032	0.033	0.033	0.035	0.035	0.035	0.035	0.036	
TRIAL (% OF POP DEC)	0.036	0.090	0.092	0.104	0.091	0.098	0.079	0.078	0.080	0.081	
T STATISTICS	8.740	8.725	9.140	6.385	6.802	3.667	3.194	3.181	3.253		
NET (% OF POP REG)	0.057	0.109	0.130	0.181	0.050	0.170	0.104	0.059	0.000	0.105	
NET (% OF POP ASC)	0.057	0.057	0.058	0.060	0.060	0.062	0.062	0.062	0.062	0.063	
NET (% OF POP DEC)	0.063	0.133	0.135	0.136	0.121	0.128	0.100	0.099	0.103	0.105	
T STATISTICS	8.655	8.518	7.579	5.147	5.493	2.427	2.106	2.224	2.302		
REPEAT (% OF POP REG)	0.025	0.047	0.077	0.040	0.025	0.044	0.021	0.000	0.000	0.023	
REPEAT (% OF POP ASC)	0.025	0.026	0.026	0.027	0.027	0.027	0.027	0.027	0.027	0.027	
REPEAT (% OF POP DEC)	0.027	0.043	0.042	0.032	0.030	0.030	0.021	0.021	0.023	0.023	
T STATISTICS	2.929	2.740	0.856	0.376	0.417	-0.576	-0.514	-0.324	-0.288		

AVERAGE TISSUE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

SWITCHING TOWARD AND COUPON USAGE = 0
SWITCHING AWAY AND COUPON USAGE = 0
LOYAY TO TEST AND COUPON USAGE = 0
OTHER SWITCHING AND COUPON USAGE = 0
LOYAL TO OTHER AND COUPON USAGE = 0

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	118.	72.	29.	27.	19.	12.	6.	5.	1.	18.	307.
X -----> O	118.	72.	29.	27.	19.	12.	6.	5.	1.	18.	307.
X -----> X	101.	43.	33.	24.	12.	11.	3.	5.	4.	6.	242.
O -----> O	2806.	1513.	856.	638.	403.	333.	115.	116.	59.	314.	7153.
O <----> O	361.	140.	45.	100.	43.	0.	14.	29.	15.	28.	775.
TOTAL	3504.	1840.	992.	816.	496.	368.	144.	160.	80.	384.	8784.
TRIAL (COL/MCD REG)	0.036	0.042	0.031	0.035	0.041	0.035	0.044	0.033	0.013	0.050	
TRIAL (COL/MCD ASC)	0.036	0.038	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	
TRIAL (COL/MCD DEC)	0.037	0.038	0.036	0.038	0.040	0.039	0.042	0.041	0.044	0.050	
NET (COL/MCD REG)	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	
NET (COL/MCD ASC)	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	
NET (COL/MCD DEC)	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	
REPEAT (COL/MCD REG)	0.461	0.374	0.532	0.471	0.387	0.478	0.333	0.500	0.800	0.250	
REPEAT (COL/MCD ASC)	0.461	0.431	0.447	0.450	0.446	0.447	0.445	0.446	0.450	0.441	
REPEAT (COL/MCD DEC)	0.441	0.427	0.456	0.425	0.402	0.408	0.375	0.385	0.345	0.250	
GAIN (% OF POP REG)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP DEC)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.034	0.039	0.029	0.033	0.038	0.033	0.042	0.031	0.012	0.047	
TRIAL (% OF POP ASC)	0.034	0.036	0.035	0.034	0.035	0.035	0.035	0.035	0.034	0.035	
TRIAL (% OF POP DEC)	0.035	0.036	0.034	0.036	0.037	0.037	0.039	0.038	0.041	0.047	
NET (% OF POP REG)	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	
NET (% OF POP ASC)	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	
NET (% OF POP DEC)	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	
REPEAT (% OF POP REG)	0.029	0.023	0.033	0.029	0.024	0.030	0.021	0.031	0.050	0.016	
REPEAT (% OF POP ASC)	0.029	0.027	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	
REPEAT (% OF POP DEC)	0.028	0.027	0.028	0.027	0.025	0.026	0.023	0.024	0.022	0.016	

AVERAGE TISSUE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
0 -----> X	252.	32.	10.	10.	1.	0.	2.	0.	0.	0.	307.
X -----> 0	257.	29.	12.	6.	0.	1.	1.	0.	1.	0.	307.
X -----> X	217.	14.	9.	1.	0.	1.	0.	0.	0.	0.	242.
0 -----> 0	6670.	315.	99.	47.	15.	5.	2.	0.	0.	0.	7153.
0 <----> 0	728.	34.	8.	2.	2.	1.	0.	0.	0.	0.	775.
TOTAL	8124.	424.	138.	66.	18.	8.	5.	0.	1.	0.	8784.
TRIAL (COL/MCD REG)	C.033	0.084	0.085	0.169	0.056	0.000	0.500	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.033	0.035	0.036	0.037	0.037	0.037	0.037	0.037	0.037	0.037	
TRIAL (COL/MCD DEC)	0.037	0.094	0.113	0.149	0.107	0.200	0.500	0.000	0.000	0.000	
T STATISTICS	7.516	5.761	5.551	1.955	0.000	0.000	0.000	0.000	0.000		
NET (CCL/MCD REG)	0.495	0.525	0.455	0.625	1.000	0.000	0.667	0.000	0.000	0.000	
NET (COL/MCD ASC)	C.495	0.498	0.497	0.500	0.501	0.500	0.501	0.501	0.500	0.500	
NET (COL/MCD DEC)	0.500	0.524	0.523	0.591	0.500	0.400	0.500	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.458	0.326	0.429	0.143	0.000	0.500	0.000	0.000	0.000	0.000	
REPEAT (CCL/MCD ASC)	0.458	0.447	0.446	0.442	0.442	0.442	0.442	0.442	0.441	0.441	
REPEAT (COL/MCD DEC)	0.441	0.333	0.344	0.182	0.250	0.250	0.000	0.000	0.000	0.000	
T STATISTICS	-2.017	-0.904	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.001	0.007	-0.014	0.061	0.056	-0.125	0.200	0.000	-1.000	0.000	
GAIN (% OF POP ASC)	-0.001	-0.000	-0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP DEC)	0.000	0.008	0.008	0.041	0.000	-0.071	0.000	-1.000	-1.000	0.000	
TRIAL (% OF POP REG)	0.031	0.075	0.072	0.152	0.056	0.000	0.400	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.031	0.033	0.034	0.035	0.035	0.035	0.035	0.035	0.035	0.035	
TRIAL (% OF POP DEC)	0.035	0.083	0.097	0.133	0.094	0.143	0.333	0.000	0.000	0.000	
T STATISTICS	7.038	5.300	5.296	1.814	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.058	0.108	0.138	0.167	0.056	0.125	0.400	0.000	0.000	0.000	
NET (% CF POP ASC)	0.058	0.060	0.061	0.062	0.062	0.062	0.063	0.063	0.063	0.063	
NET (% OF POP DEC)	0.063	0.121	0.144	0.153	0.125	0.214	0.333	0.000	0.000	0.000	
T STATISTICS	6.479	5.248	3.724	1.463	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.027	0.033	0.065	0.015	0.000	0.125	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.027	0.027	0.028	0.028	0.027	0.028	0.028	0.028	0.028	0.028	
REPEAT (% OF POP DEC)	0.028	0.038	0.047	0.029	0.031	0.071	0.000	0.000	0.000	0.000	
T STATISTICS	1.686	1.813	-0.434	0.128	0.000	0.000	0.000	0.000	0.000		

AVERAGE TISSUE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	129.	72.	38.	18.	16.	9.	4.	6.	4.	11.	307.
X -----> O	128.	70.	37.	25.	13.	9.	7.	4.	2.	12.	307.
X -----> X	104.	43.	36.	25.	12.	7.	4.	3.	3.	5.	242.
O -----> O	2913.	1525.	843.	614.	403.	297.	123.	108.	58.	269.	7153.
O <----> O	368.	141.	53.	91.	40.	3.	13.	26.	13.	27.	775.
TOTAL	3642.	1851.	1007.	773.	484.	325.	151.	147.	80.	324.	8784.
TRIAL (COL/MCD REG)	0.038	0.041	0.041	0.025	0.035	0.029	0.029	0.043	0.053	0.036	
TRIAL (COL/MCD ASC)	0.038	0.039	0.039	0.038	0.038	0.037	0.037	0.037	0.037	0.037	
TRIAL (COL/MCD DEC)	0.037	0.037	0.034	0.032	0.035	0.035	0.038	0.040	0.039	0.036	
NET (COL/MCD REG)	0.502	0.507	0.507	0.419	0.552	0.500	0.364	0.600	0.667	0.478	
NET (COL/MCD ASC)	0.502	0.504	0.504	0.497	0.500	0.500	0.497	0.499	0.501	0.500	
NET (COL/MCD DEC)	0.500	0.499	0.493	0.486	0.515	0.500	0.500	0.538	0.517	0.478	
REPEAT (COL/MCD REG)	0.448	0.381	0.493	0.500	0.480	0.438	0.364	0.429	0.600	0.294	
REPEAT (COL/MCD ASC)	0.448	0.426	0.438	0.444	0.446	0.446	0.444	0.444	0.445	0.441	
REPEAT (COL/MCD DEC)	0.441	0.435	0.466	0.450	0.420	0.393	0.375	0.379	0.364	0.294	
GAIN (% OF POP REG)	0.000	0.001	0.001	-0.009	0.006	0.000	-0.020	0.014	0.025	-0.003	
GAIN (% OF POP ASC)	0.000	0.001	0.001	-0.000	0.000	0.000	-0.000	-0.000	0.000	0.000	
GAIN (% OF POP DEC)	0.000	-0.000	-0.001	-0.002	0.002	0.000	0.000	0.005	0.002	-0.003	
TRIAL (% OF POP REG)	0.035	0.039	0.038	0.023	0.033	0.028	0.026	0.041	0.050	0.034	
TRIAL (% OF POP ASC)	0.035	0.037	0.037	0.035	0.035	0.035	0.035	0.035	0.035	0.035	
TRIAL (% OF POP DEC)	0.035	0.035	0.032	0.030	0.033	0.033	0.036	0.038	0.037	0.034	
NET (% OF POP REG)	0.064	0.062	0.073	0.056	0.058	0.049	0.053	0.061	0.087	0.049	
NET (% OF POP ASC)	0.064	0.063	0.065	0.064	0.064	0.063	0.063	0.063	0.063	0.063	
NET (% OF POP DEC)	0.063	0.061	0.061	0.056	0.056	0.055	0.057	0.058	0.057	0.049	
REPEAT (% OF POP REG)	0.029	0.023	0.036	0.032	0.025	0.022	0.026	0.020	0.037	0.015	
REPEAT (% OF POP ASC)	0.029	0.027	0.028	0.029	0.028	0.028	0.028	0.028	0.028	0.028	
REPEAT (% OF POP DEC)	0.028	0.027	0.029	0.026	0.023	0.021	0.021	0.020	0.020	0.015	

AVERAGE TISSUE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
0 -----> X	28.	15.	17.	25.	75.	132.	12.	2.	1.	0.	0.	307.
X -----> 0	29.	10.	24.	30.	73.	125.	11.	4.	0.	0.	1.	307.
X -----> X	18.	9.	27.	34.	43.	107.	4.	0.	0.	0.	0.	242.
0 -----> 0	813.	360.	611.	823.	1506.	2892.	118.	25.	5.	0.	0.	7153.
0 <----> 0	79.	39.	88.	45.	145.	367.	10.	1.	1.	0.	0.	775.
TOTAL	967.	433.	767.	957.	1842.	3623.	155.	32.	7.	0.	1.	8784.
TRIAL (COL/MCD REG)	0.030	0.036	0.024	0.028	0.043	0.039	0.086	0.071	0.143	0.000	0.000	
TRIAL (COL/MCD ASC)	0.030	0.032	0.029	0.029	0.034	0.036	0.037	0.037	0.037	0.037	0.037	
TRIAL (COL/MCD DEC)	0.037	0.038	0.038	0.040	0.042	0.041	0.086	0.086	0.143	0.000	0.000	
NET (COL/MCD REG)	0.491	0.600	0.415	0.455	0.507	0.514	0.522	0.333	1.000	0.000	0.000	
NET (CCL/MCD ASC)	0.491	0.524	0.488	0.478	0.491	0.501	0.502	0.500	0.501	0.501	0.500	
NET (COL/MCD DEC)	0.500	0.501	0.496	0.503	0.509	0.510	0.484	0.375	0.500	0.000	0.000	
REPEAT (COL/MCD REG)	0.383	0.474	0.529	0.531	0.371	0.461	0.267	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.383	0.409	0.462	0.486	0.441	0.450	0.445	0.442	0.442	0.442	0.441	
REPEAT (COL/MCD DEC)	0.441	0.446	0.445	0.435	0.418	0.440	0.200	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	-0.001	0.012	-0.009	-0.005	0.001	0.002	0.006	-0.063	0.143	0.000	-1.000	
GAIN (% OF POP ASC)	-0.001	0.003	-0.001	-0.003	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP DEC)	0.000	0.000	-0.001	0.000	0.001	0.002	-0.005	-0.050	0.000	-1.000	-1.000	
TRIAL (% OF POP REG)	0.029	0.035	0.022	0.026	0.041	0.036	0.077	0.063	0.143	0.000	0.000	
TRIAL (% OF POP ASC)	0.029	0.031	0.028	0.027	0.032	0.034	0.035	0.035	0.035	0.035	0.035	
TRIAL (% OF POP DEC)	0.035	0.036	0.036	0.037	0.039	0.039	0.077	0.075	0.125	0.000	0.000	
NET (% OF POP REG)	0.048	0.055	0.057	0.062	0.064	0.066	0.103	0.063	0.143	0.000	0.000	
NET (% OF POP ASC)	0.048	0.050	0.053	0.055	0.059	0.062	0.062	0.062	0.063	0.063	0.063	
NET (% OF POP DEC)	0.063	0.064	0.065	0.066	0.066	0.068	0.097	0.075	0.125	0.000	0.000	
REPEAT (% OF POP REG)	0.019	0.021	0.035	0.036	0.023	0.030	0.026	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.019	0.019	0.025	0.028	0.026	0.028	0.028	0.028	0.028	0.028	0.028	
REPEAT (% OF POP DEC)	0.028	0.029	0.029	0.028	0.027	0.029	0.021	0.000	0.000	0.000	0.000	

AVERAGE TISSUE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	Total
0 -----> X	5.	3.	16.	34.	13.	202.	24.	7.	2.	1.	0.	307.
X -----> 0	2.	5.	21.	28.	19.	203.	19.	5.	4.	0.	1.	307.
X -----> X	2.	2.	12.	34.	16.	166.	6.	4.	0.	0.	0.	242.
0 -----> 0	79.	118.	450.	1161.	277.	4804.	198.	48.	16.	1.	1.	7153.
0 <----> 0	16.	15.	18.	91.	30.	580.	19.	4.	1.	1.	0.	775.
TOTAL	104.	143.	517.	1348.	355.	5955.	266.	68.	23.	3.	2.	8784.
TRIAL (COL/MCD REG)	0.050	0.022	0.033	0.026	0.041	0.036	0.100	0.119	0.105	0.333	0.000	
TRIAL (CCL/MCD ASC)	0.050	0.034	0.033	0.029	0.031	0.035	0.036	0.037	0.037	0.037	0.037	
TRIAL (COL/MCD DEC)	0.037	0.037	0.037	0.038	0.040	0.040	0.105	0.122	0.130	0.250	0.000	
T STATISTICS	-0.676	0.278	0.585	2.274	2.030	6.571	4.043	2.310	0.000	0.000		
NET (CCL/MCD REG)	0.714	0.375	0.432	0.548	0.406	0.499	0.558	0.583	0.333	1.000	0.000	
NET (COL/MCD ASC)	0.714	0.533	0.462	0.509	0.486	0.495	0.500	0.502	0.500	0.501	0.500	
NET (COL/MCD DEC)	0.500	0.498	0.499	0.504	0.498	0.504	0.540	0.500	0.375	0.500	0.000	
REPEAT (COL/MCD REG)	0.500	0.286	0.364	0.548	0.457	0.450	0.240	0.444	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.500	0.364	0.364	0.472	0.468	0.455	0.445	0.445	0.442	0.442	0.441	
REPEAT (COL/MCD DEC)	0.441	0.440	0.442	0.448	0.433	0.431	0.256	0.286	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.992	-0.604	-0.535	-2.401	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.029	-0.014	-0.010	0.004	-0.017	-0.000	0.019	0.029	-0.087	0.333	-0.500	
GAIN (% OF POP ASC)	0.029	0.004	-0.005	0.001	-0.002	-0.001	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP DEC)	0.000	-0.000	-0.000	0.000	-0.000	0.001	0.014	0.000	-0.071	0.000	-0.500	
TRIAL (% OF POP REG)	0.048	0.021	0.031	0.025	0.037	0.034	0.090	0.103	0.087	0.333	0.000	
TRIAL (% OF POP ASC)	0.048	0.032	0.031	0.027	0.029	0.032	0.034	0.035	0.035	0.035	0.035	
TRIAL (% OF POP DEC)	0.035	0.035	0.035	0.035	0.037	0.037	0.094	0.104	0.107	0.200	0.000	
T STATISTICS	-0.733	0.222	0.557	2.150	1.968	6.216	3.656	1.970	0.000	0.000		
NET (% OF POP REG)	0.067	0.035	0.054	0.050	0.082	0.062	0.113	0.162	0.087	0.333	0.000	
NET (% OF POP ASC)	0.067	0.049	0.052	0.051	0.056	0.060	0.062	0.062	0.062	0.063	0.063	
NET (% OF POP DEC)	0.063	0.062	0.063	0.063	0.066	0.065	0.122	0.146	0.107	0.200	0.000	
T STATISTICS	-0.204	0.917	1.212	2.475	1.686	4.722	3.340	0.924	0.000	0.000		
REPEAT (% OF POP REG)	0.019	0.014	0.023	0.025	0.045	0.028	0.023	0.059	0.000	0.000	0.000	
REPEAT (% CF POP ASC)	0.019	0.016	0.021	0.024	0.027	0.028	0.027	0.028	0.028	0.028	0.028	
REPEAT (% OF POP DEC)	0.028	0.028	0.028	0.028	0.029	0.028	0.028	0.042	0.000	0.000	0.000	
T STATISTICS	0.521	1.106	1.168	1.249	0.285	0.009	0.837	-0.843	0.000	0.000		

AVERAGE TISSUE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	252.	2.	7.	16.	1.	15.	3.	0.	0.	11.	307.
X -----> O	258.	5.	8.	10.	3.	8.	2.	2.	1.	10.	307.
X -----> X	217.	1.	9.	4.	1.	6.	1.	0.	0.	3.	242.
O -----> O	6672.	35.	99.	81.	32.	87.	29.	10.	1.	107.	7153.
O <----> O	730.	7.	8.	11.	1.	6.	4.	1.	0.	7.	775.
TOTAL	8129.	50.	131.	122.	38.	122.	39.	13.	2.	138.	8784.
TRIAL (COL/MCD REG)	0.033	0.045	0.061	0.148	0.029	0.139	0.083	0.000	0.000	0.088	
TRIAL (COL/MCD ASC)	0.033	0.033	0.033	0.035	0.035	0.036	0.037	0.037	0.036	0.037	
TRIAL (COL/MCD DEC)	0.037	0.095	0.099	0.109	0.095	0.103	0.081	0.080	0.087	0.088	
T STATISTICS	7.573	7.770	7.966	5.537	5.935	3.063	2.680	2.987	3.016		
NET (COL/MCD REG)	0.494	0.286	0.467	0.615	0.250	0.652	0.600	0.000	0.000	0.524	
NET (COL/MCD ASC)	0.494	0.491	0.491	0.496	0.495	0.501	0.502	0.500	0.499	0.500	
NET (COL/MCD DEC)	0.500	0.529	0.546	0.561	0.536	0.558	0.483	0.458	0.500	0.524	
REPEAT (COL/MCD REG)	0.457	0.167	0.529	0.286	0.250	0.429	0.333	0.000	0.000	0.231	
REPEAT (COL/MCD ASC)	0.457	0.453	0.456	0.451	0.450	0.449	0.448	0.447	0.446	0.441	
REPEAT (COL/MCD DEC)	0.441	0.338	0.353	0.294	0.297	0.303	0.211	0.188	0.214	0.231	
T STATISTICS	-1.918	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.001	-0.060	-0.008	0.049	-0.053	0.057	0.026	-0.154	-0.500	0.007	
GAIN (% OF POP ASC)	-0.001	-0.001	-0.001	-0.000	-0.001	0.000	0.000	0.000	-0.000	0.000	
GAIN (% OF POP DEC)	0.000	0.009	0.015	0.021	0.011	0.019	-0.005	-0.013	0.000	0.007	
TRIAL (% OF POP REG)	0.031	0.040	0.053	0.131	0.026	0.123	0.077	0.000	0.000	0.080	
TRIAL (% OF POP ASC)	0.031	0.031	0.031	0.033	0.033	0.034	0.034	0.034	0.034	0.035	
TRIAL (% OF POP DEC)	0.035	0.084	0.088	0.097	0.085	0.092	0.073	0.072	0.079	0.080	
T STATISTICS	7.101	7.308	7.568	5.242	5.641	2.896	2.510	2.833	2.886		
NET (% OF POP REG)	0.058	0.060	0.122	0.164	0.053	0.172	0.103	0.000	0.000	0.101	
NET (% OF POP ASC)	0.058	0.058	0.059	0.060	0.060	0.062	0.062	0.062	0.062	0.063	
NET (% OF POP DEC)	0.063	0.122	0.127	0.129	0.116	0.124	0.094	0.092	0.100	0.101	
T STATISTICS	6.555	6.821	6.121	4.270	4.600	1.809	1.495	1.848	1.905		
REPEAT (% OF POP REG)	0.027	0.020	0.069	0.033	0.026	0.049	0.026	0.000	0.000	0.022	
REPEAT (% OF POP ASC)	0.027	0.027	0.027	0.027	0.027	0.028	0.028	0.028	0.028	0.028	
REPEAT (% OF POP DEC)	0.028	0.038	0.040	0.032	0.031	0.032	0.021	0.020	0.021	0.022	
T STATISTICS	1.726	1.887	0.560	0.433	0.474	-0.575	-0.605	-0.446	-0.420		

AVERAGE TISSUE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

SWITCHING TOWARD AND COUPON USAGE = 76
SWITCHING AWAY AND COUPON USAGE = 76
LOYAY TO TEST AND COUPON USAGE = 45
OTHER SWITCHING AND COUPON USAGE = 1420
LOYAL TO OTHER AND COUPON USAGE = 319

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	23.	18.	10.	10.	7.	0.	3.	1.	1.	3.	76.
X -----> O	23.	18.	10.	10.	7.	0.	3.	1.	1.	3.	76.
X -----> X	14.	10.	5.	4.	6.	1.	2.	2.	1.	0.	45.
O -----> O	445.	329.	172.	172.	174.	15.	57.	14.	14.	28.	1420.
O <----> O	87.	73.	43.	28.	14.	0.	15.	30.	15.	14.	319.
TOTAL	592.	448.	240.	224.	208.	16.	80.	48.	32.	48.	1936.
TRIAL (COL/MCD REG)	0.041	0.043	0.044	0.048	0.036	0.000	0.040	0.022	0.033	0.067	
TRIAL (COL/MCD ASC)	0.041	0.042	0.042	0.043	0.042	0.042	0.042	0.041	0.041	0.042	
TRIAL (COL/MCD DEC)	0.042	0.042	0.042	0.041	0.037	0.038	0.041	0.042	0.053	0.067	
NET (COL/MCD REG)	0.500	0.500	0.500	0.500	0.500	0.000	0.500	0.500	0.500	0.500	
NET (COL/MCD ASC)	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	
NET (COL/MCD DEC)	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	
REPEAT (COL/MCD REG)	0.378	0.357	0.333	0.286	0.462	1.000	0.400	0.667	0.500	0.000	
REPEAT (COL/MCD ASC)	0.378	0.369	0.362	0.351	0.364	0.370	0.372	0.379	0.381	0.372	
REPEAT (CCL/MCD DEC)	0.372	0.369	0.375	0.390	0.444	0.429	0.385	0.375	0.200	0.000	
GAIN (% OF POP REG)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP DEC)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.039	0.040	0.042	0.045	0.034	0.000	0.037	0.021	0.031	0.063	
TRIAL (% OF POP ASC)	0.039	0.039	0.040	0.041	0.040	0.039	0.039	0.039	0.039	0.039	
TRIAL (% OF POP DEC)	0.039	0.039	0.039	0.038	0.035	0.036	0.038	0.039	0.050	0.063	
NET (% CF POP REG)	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	
NET (% OF POP ASC)	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	
NET (% CF POP DEC)	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	
REPEAT (% OF POP REG)	0.024	0.022	0.021	0.018	0.029	0.063	0.025	0.042	0.031	0.000	
REPEAT (% OF POP ASC)	0.024	0.023	0.023	0.022	0.023	0.023	0.023	0.024	0.024	0.023	
REPEAT (% CF POP DEC)	0.023	0.023	0.023	0.024	0.028	0.027	0.024	0.023	0.012	0.000	

AVERAGE TISSUE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	57.	11.	4.	3.	1.	0.	0.	0.	0.	0.	76.
X -----> O	59.	11.	3.	2.	1.	0.	0.	0.	0.	0.	76.
X -----> X	35.	8.	2.	0.	0.	0.	0.	0.	0.	0.	45.
O -----> O	1324.	64.	21.	9.	2.	0.	0.	0.	0.	0.	1420.
O <-----> O	295.	11.	8.	4.	0.	1.	0.	0.	0.	0.	319.
TOTAL	1770.	105.	38.	18.	4.	1.	0.	0.	0.	0.	1936.
TRIAL (COL/MCD REG)	0.034	0.128	0.121	0.188	0.333	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.034	0.039	0.040	0.041	0.042	0.042	0.042	0.042	0.042	0.042	
TRIAL (COL/MCD DEC)	0.042	0.137	0.151	0.200	0.250	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	5.808	4.023	3.550	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.491	0.500	0.571	0.600	0.500	0.000	0.000	0.000	0.000	0.000	
NET (CCL/MCD ASC)	0.491	0.493	0.497	0.500	0.500	0.500	0.500	0.500	0.500	0.500	
NET (COL/MCD DEC)	0.500	0.528	0.571	0.571	0.500	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.372	0.421	0.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.372	0.381	0.381	0.375	0.372	0.372	0.372	0.372	0.372	0.372	
REPEAT (CCL/MCD DEC)	0.372	0.370	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.001	0.000	0.026	0.056	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.001	-0.001	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF PUP DEC)	0.000	0.012	0.033	0.043	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF PUP REG)	0.032	0.105	0.105	0.167	0.250	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.032	0.036	0.038	0.039	0.039	0.039	0.039	0.039	0.039	0.039	
TRIAL (% OF POP DEC)	0.039	0.114	0.131	0.174	0.200	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	5.218	3.755	3.345	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.052	0.181	0.158	0.167	0.250	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.052	0.059	0.061	0.062	0.063	0.063	0.063	0.063	0.063	0.063	
NET (% OF POP DEC)	0.063	0.175	0.164	0.174	0.200	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	6.246	3.326	2.221	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.020	0.076	0.053	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.020	0.023	0.024	0.023	0.023	0.023	0.023	0.023	0.023	0.023	
REPEAT (% UF POP DEC)	0.023	0.060	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	3.309	0.503	-0.744	0.000	0.000	0.000	0.000	0.000	0.000		

AVERAGE TISSUE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	26.	19.	14.	6.	4.	1.	3.	1.	0.	2.	76.
X -----> O	24.	21.	11.	9.	6.	1.	0.	1.	1.	2.	76.
X -----> X	15.	10.	5.	6.	4.	2.	2.	1.	0.	0.	45.
O -----> O	470.	329.	172.	177.	151.	18.	50.	14.	13.	26.	1420.
O <----> O	91.	76.	40.	27.	14.	5.	14.	28.	13.	11.	319.
TOTAL	626.	455.	242.	225.	179.	27.	69.	45.	27.	41.	1936.
TRIAL (COL/MCD REG)	0.044	0.045	0.062	0.029	0.024	0.042	0.045	0.023	0.000	0.051	
TRIAL (COL/MCD ASC)	0.044	0.045	0.048	0.045	0.043	0.043	0.043	0.042	0.042	0.042	
TRIAL (COL/MCD DEC)	0.042	0.041	0.039	0.029	0.030	0.035	0.034	0.028	0.031	0.051	
NET (COL/MCD REG)	0.520	0.475	0.560	0.400	0.400	0.500	1.000	0.500	0.000	0.500	
NET (COL/MCD ASC)	0.520	0.500	0.513	0.500	0.493	0.493	0.503	0.503	0.500	0.500	
NET (COL/MCD DEC)	0.500	0.490	0.500	0.459	0.500	0.583	0.600	0.429	0.400	0.500	
REPEAT (COL/MCD REG)	0.385	0.323	0.313	0.400	0.400	0.667	1.000	0.500	0.000	0.000	
REPEAT (COL/MCD ASC)	0.385	0.357	0.349	0.356	0.360	0.368	0.379	0.381	0.378	0.372	
REPEAT (COL/MCD DEC)	0.372	0.366	0.392	0.429	0.450	0.500	0.429	0.200	0.000	0.000	
GAIN (% OF POP REG)	0.003	-0.004	0.012	-0.013	-0.011	0.000	0.043	0.000	-0.037	0.000	
GAIN (% OF POP ASC)	0.003	0.000	0.002	0.000	-0.001	-0.001	0.001	0.001	0.000	0.000	
GAIN (% OF POP DEC)	0.000	-0.002	0.000	-0.005	0.000	0.010	0.011	-0.009	-0.015	0.000	
TRIAL (% OF POP REG)	0.042	0.042	0.058	0.027	0.022	0.037	0.043	0.022	0.000	0.049	
TRIAL (% OF POP ASC)	0.042	0.042	0.045	0.042	0.040	0.040	0.040	0.040	0.039	0.039	
TRIAL (% OF POP DEC)	0.039	0.038	0.036	0.028	0.028	0.033	0.033	0.027	0.029	0.049	
NET (% OF POP REG)	0.065	0.064	0.079	0.053	0.045	0.111	0.072	0.044	0.000	0.049	
NET (% OF POP ASC)	0.065	0.065	0.067	0.065	0.063	0.064	0.064	0.064	0.063	0.063	
NET (% OF POP DEC)	0.063	0.061	0.060	0.052	0.052	0.057	0.049	0.035	0.029	0.049	
REPEAT (% OF POP REG)	0.024	0.022	0.021	0.027	0.022	0.074	0.029	0.022	0.000	0.000	
REPEAT (% OF POP ASC)	0.024	0.023	0.023	0.023	0.023	0.024	0.024	0.024	0.024	0.023	
REPEAT (% OF POP DEC).	0.023	0.023	0.023	0.024	0.023	0.024	0.016	0.009	0.000	0.000	

AVERAGE TISSUE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	5.	4.	6.	9.	19.	28.	4.	1.	0.	0.	0.	76.
X -----> O	3.	6.	5.	11.	23.	26.	1.	1.	0.	0.	0.	76.
X -----> X	3.	5.	3.	8.	10.	15.	1.	0.	0.	0.	0.	45.
O -----> O	114.	152.	160.	177.	318.	466.	25.	5.	3.	0.	0.	1420.
O <----> O	66.	14.	28.	40.	70.	94.	6.	0.	1.	0.	0.	319.
TOTAL	191.	181.	202.	245.	440.	629.	37.	7.	4.	0.	0.	1936.
TRIAL (COL/MCD REG)	0.027	0.024	0.031	0.040	0.047	0.048	0.114	0.167	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.027	0.025	0.027	0.031	0.036	0.040	0.042	0.042	0.042	0.042	0.042	
TRIAL (CCL/MCD DEC)	0.042	0.044	0.046	0.048	0.050	0.052	0.111	0.100	0.000	0.000	0.000	
NET (COL/MCD REG)	0.625	0.400	0.545	0.450	0.452	0.519	0.800	0.500	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.625	0.500	0.517	0.490	0.473	0.490	0.500	0.500	0.500	0.500	0.500	
NET (COL/MCD DEC)	0.500	0.493	0.500	0.496	0.505	0.541	0.714	0.500	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.500	0.455	0.375	0.421	0.303	0.366	0.500	0.000	0.000	0.000	0.000	
REPEAT (CCL/MCD ASC)	0.500	0.471	0.440	0.432	0.377	0.373	0.375	0.372	0.372	0.372	0.372	
REPEAT (COL/MCD DEC)	0.372	0.365	0.356	0.354	0.338	0.364	0.333	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.010	-0.011	0.005	-0.008	-0.009	0.003	0.081	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.010	0.000	0.002	-0.001	-0.004	-0.002	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP DEC)	0.000	-0.001	0.000	-0.001	0.001	0.007	0.063	0.000	0.000	0.000	0.000	
TRIAL (% OF PCP REG)	0.026	0.022	0.030	0.037	0.043	0.045	0.108	0.143	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.026	0.024	0.026	0.029	0.034	0.038	0.039	0.039	0.039	0.039	0.039	
TRIAL (% OF POP DEC)	0.039	0.041	0.043	0.045	0.047	0.049	0.104	0.091	0.000	0.000	0.000	
NET (% OF POP REG)	0.042	0.050	0.045	0.069	0.066	0.068	0.135	0.143	0.000	0.000	0.000	
NET (% OF POP ASC)	0.042	0.046	0.045	0.053	0.057	0.061	0.062	0.063	0.063	0.063	0.063	
NET (% OF POP DEC)	0.063	0.065	0.066	0.070	0.070	0.072	0.125	0.091	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.016	0.028	0.015	0.033	0.023	0.024	0.027	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.016	0.022	0.019	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023	
REPEAT (% OF POP DEC)	0.023	0.024	0.024	0.025	0.023	0.024	0.021	0.000	0.000	0.000	0.000	

AVERAGE TISSUE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
C -----> X	0.	0.	2.	10.	6.	47.	6.	4.	1.	0.	0.	76.
X -----> O	0.	0.	2.	10.	11.	45.	6.	2.	0.	0.	0.	76.
X -----> X	1.	1.	3.	7.	6.	25.	2.	0.	0.	0.	0.	45.
O -----> O	0.	30.	107.	292.	62.	867.	42.	15.	4.	1.	0.	1420.
O <----> O	12.	0.	21.	71.	12.	186.	13.	3.	1.	0.	0.	319.
TOTAL	13.	31.	135.	390.	97.	1170.	69.	24.	6.	1.	0.	1936.
TRIAL (CCL/MCD REG)	0.000	0.000	0.015	0.027	0.075	0.043	0.098	0.182	0.167	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.000	0.012	0.022	0.029	0.038	0.040	0.041	0.042	0.042	0.042	
TRIAL (CCL/MCD DEC)	0.042	0.042	0.043	0.045	0.050	0.049	0.122	0.172	0.143	0.000	0.000	
T STATISTICS	0.000	1.371	2.081	2.766	2.015	3.904	3.538	0.000	0.000	0.000		
NET (COL/MCC REG)	0.000	0.000	0.500	0.500	0.353	0.511	0.500	0.667	1.000	0.000	0.000	
NET (CCL/MCD ASC)	0.000	0.000	0.500	0.500	0.439	0.489	C.490	0.497	0.500	0.500	0.500	
NET (COL/MCD DEC)	0.500	0.500	0.500	0.500	0.500	0.523	0.579	0.714	1.000	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	1.000	0.600	0.412	0.353	0.357	0.250	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	1.000	1.000	0.714	0.500	0.439	0.387	0.378	0.372	0.372	0.372	0.372	
REPEAT (COL/MCD DEC)	0.372	0.367	0.361	0.351	0.340	0.337	0.200	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	-0.922	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	0.000	0.000	-0.052	0.002	0.000	0.083	0.167	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	0.000	0.000	-0.008	-0.002	-0.002	-0.001	0.000	0.000	0.000	
GAIN (% OF POP DEC)	0.000	0.000	0.000	0.000	0.000	0.004	0.030	0.097	0.143	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.000	0.015	0.026	0.062	0.040	0.087	0.167	0.167	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.011	0.021	0.027	0.035	0.037	0.039	0.039	0.039	0.039	
TRIAL (% OF POP DEC)	0.039	0.040	0.040	0.042	0.047	0.046	0.110	0.161	0.143	0.000	0.000	
T STATISTICS	0.000	1.356	2.031	2.655	2.006	3.725	3.473	0.000	0.000	0.000		
NET (% OF PCP REG)	0.077	0.032	0.037	0.044	0.124	0.062	0.116	0.167	0.167	0.000	0.000	
NET (% OF POP ASC)	0.077	0.045	0.039	0.042	0.054	0.059	0.061	0.062	0.063	0.063	0.063	
NET (% OF POP DEC)	0.063	0.062	0.063	0.065	0.071	0.067	0.130	0.161	0.143	0.000	0.000	
T STATISTICS	0.000	0.472	1.357	2.383	1.112	2.851	2.255	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.077	0.032	0.022	0.018	0.062	0.021	0.029	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.077	0.045	0.028	0.021	0.027	0.023	0.024	0.023	0.023	0.023	0.023	
REPEAT (% OF POP DEC)	0.023	0.023	0.023	0.023	0.024	0.021	0.020	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	-0.989	-0.437	0.406	-0.800	-0.220	-0.852	0.000	0.000	0.000		

AVERAGE TISSUE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	57.	2.	2.	5.	0.	5.	1.	1.	0.	3.	76.
X -----> O	59.	2.	3.	6.	1.	3.	1.	0.	0.	1.	76.
X -----> X	35.	2.	4.	2.	0.	1.	0.	0.	0.	1.	45.
O -----> O	1324.	6.	24.	12.	0.	21.	5.	2.	1.	25.	1420.
O <----> O	295.	2.	5.	2.	1.	7.	2.	1.	0.	4.	319.
TOTAL	1770.	14.	38.	27.	2.	37.	9.	4.	1.	34.	1936.
TRIAL (COL/MCD REG)	0.034	0.200	0.065	0.263	0.000	0.152	0.125	0.250	0.000	0.094	
TRIAL (COL/MCD ASC)	0.034	0.035	0.036	0.038	0.038	0.040	0.040	0.041	0.041	0.042	
TRIAL (COL/MCD DEC)	0.042	0.137	0.132	0.153	0.127	0.128	0.111	0.108	0.091	0.094	
T STATISTICS	5.808	5.290	5.650	3.843	3.891	2.348	2.032	1.419	1.478		
NET (COL/MCD REG)	0.491	0.500	0.400	0.455	0.000	0.625	0.500	1.000	0.000	0.750	
NET (CCL/MCD ASC)	0.491	0.492	0.488	0.485	0.482	0.490	0.490	0.493	0.493	0.500	
NET (COL/MCD DEC)	0.500	0.528	0.531	0.556	0.625	0.667	0.714	0.800	0.750	0.750	
REPEAT (COL/MCD REG)	0.372	0.500	0.571	0.250	0.000	0.250	0.000	0.000	0.000	0.500	
REPEAT (COL/MCD ASC)	0.372	0.378	0.390	0.381	0.377	0.373	0.370	0.370	0.370	0.372	
REPEAT (COL/MCD DEC)	0.372	0.370	0.348	0.250	0.250	0.286	0.333	0.500	0.500	0.500	
T STATISTICS	-0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.001	0.000	-0.026	-0.037	-0.500	0.054	0.000	0.250	0.000	0.059	
GAIN (% OF POP ASC)	-0.001	-0.001	-0.002	-0.002	-0.003	-0.002	-0.002	-0.001	-0.001	0.000	
GAIN (% OF POP DEC)	0.000	0.012	0.013	0.026	0.046	0.059	0.063	0.077	0.057	0.059	
TRIAL (% OF POP REG)	0.032	0.143	0.053	0.185	0.000	0.135	0.111	0.250	0.000	0.088	
TRIAL (% OF POP ASC)	0.032	0.033	0.033	0.036	0.036	0.038	0.038	0.038	0.038	0.039	
TRIAL (% OF POP DEC)	0.039	0.114	0.112	0.132	0.115	0.118	0.104	0.103	0.086	0.088	
T STATISTICS	5.218	4.800	5.232	3.720	3.806	2.345	2.057	1.428	1.484		
NET (% OF POP REG)	0.052	0.286	0.158	0.259	0.000	0.162	0.111	0.250	0.000	0.118	
NET (% OF PUP ASC)	0.052	0.054	0.056	0.059	0.059	0.061	0.061	0.062	0.062	0.063	
NET (% OF PCP DEC)	0.063	0.175	0.164	0.167	0.138	0.141	0.125	0.128	0.114	0.118	
T STATISTICS	6.246	5.411	4.736	2.974	3.065	1.811	1.712	1.277	1.340		
REPEAT (% OF POP REG)	0.020	0.143	0.105	0.074	0.000	0.027	0.000	0.000	0.000	0.029	
REPEAT (% OF POP ASC)	0.020	0.021	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023	
REPEAT (% OF POP DEC)	0.023	0.060	0.053	0.035	0.023	0.024	0.021	0.026	0.029	0.029	
T STATISTICS	3.309	2.505	0.865	-0.016	0.018	-0.112	0.100	0.211	0.241		

BANNER CHARMIN COTTONELLE AVG 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

SWITCHING TOWARD AND COUPON USAGE = 56
SWITCHING AWAY AND COUPON USAGE = 40
LOYAL TO TEST AND COUPON USAGE = 33
OTHER SWITCHING AND COUPON USAGE = 191
LOYAL TO OTHER AND COUPON USAGE = 43

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	68.	52.	20.	22.	12.	5.	6.	3.	1.	12.	201.
X -----> O	66.	51.	21.	19.	16.	5.	4.	3.	2.	10.	197.
X -----> X	54.	19.	14.	10.	9.	6.	2.	5.	3.	1.	123.
O -----> O	518.	283.	165.	128.	87.	56.	26.	20.	11.	53.	1347.
O <----> O	62.	24.	11.	16.	8.	0.	4.	8.	4.	5.	142.
TOTAL	768.	429.	231.	195.	132.	72.	42.	39.	21.	81.	2010.
TRIAL (COL/MCD REG)	0.105	0.145	0.102	0.133	0.112	0.082	0.167	0.097	0.063	0.171	
TRIAL (COL/MCD ASC)	0.105	0.119	0.116	0.118	0.118	0.116	0.118	0.117	0.117	0.119	
TRIAL (COL/MCD DEC)	0.119	0.128	0.119	0.125	0.121	0.126	0.144	0.137	0.151	0.171	
NET (COL/MCD REG)	0.507	0.505	0.488	0.537	0.429	0.500	0.600	0.500	0.333	0.545	
NET (COL/MCD ASC)	0.507	0.506	0.504	0.508	0.501	0.501	0.504	0.504	0.503	0.505	
NET (COL/MCD DEC)	0.505	0.504	0.503	0.508	0.494	0.529	0.537	0.516	0.520	0.545	
REPEAT (COL/MCD REG)	0.450	0.271	0.400	0.345	0.360	0.545	0.333	0.625	0.600	0.091	
REPEAT (COL/MCD ASC)	0.450	0.384	0.387	0.382	0.380	0.386	0.385	0.391	0.395	0.384	
REPEAT (COL/MCD DEC)	0.384	0.345	0.385	0.379	0.394	0.415	0.367	0.375	0.250	0.091	
GAIN (% OF POP REG)	0.003	0.002	-0.004	0.015	-0.030	0.000	0.048	0.000	-0.048	0.025	
GAIN (% OF POP ASC)	0.003	0.003	0.001	0.003	0.001	0.001	0.002	0.002	0.001	0.002	
GAIN (% OF POP DEC)	0.002	0.002	0.001	0.003	-0.003	0.012	0.016	0.007	0.010	0.025	
TRIAL (% OF POP REG)	0.089	0.121	0.087	0.113	0.091	0.069	0.143	0.077	0.048	0.148	
TRIAL (% OF POP ASC)	0.089	0.100	0.098	0.100	0.099	0.098	0.099	0.099	0.098	0.100	
TRIAL (% OF POP DEC)	0.100	0.107	0.100	0.105	0.101	0.106	0.120	0.113	0.127	0.148	
NET (% OF POP REG)	0.159	0.166	0.147	0.164	0.159	0.153	0.190	0.205	0.190	0.160	
NET (% OF POP ASC)	0.159	0.161	0.159	0.160	0.160	0.159	0.160	0.161	0.161	0.161	
NET (% OF POP DEC)	0.161	0.163	0.161	0.167	0.168	0.173	0.180	0.177	0.167	0.160	
REPEAT (% OF POP REG)	0.070	0.044	0.061	0.051	0.068	0.083	0.048	0.128	0.143	0.012	
REPEAT (% OF POP ASC)	0.070	0.061	0.061	0.060	0.060	0.061	0.061	0.062	0.063	0.061	
REPEAT (% OF POP DEC)	0.061	0.056	0.062	0.062	0.067	0.067	0.060	0.064	0.039	0.012	

BANNER CHARMIN COTTONELLE AVG 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	131.	42.	12.	12.	2.	0.	2.	0.	0.	0.	201.
X -----> O	136.	35.	14.	8.	1.	1.	1.	0.	1.	0.	197.
X -----> X	93.	19.	10.	0.	0.	1.	0.	0.	0.	0.	123.
O -----> O	946.	251.	92.	42.	11.	4.	1.	0.	0.	0.	1347.
O <----> O	103.	25.	9.	4.	1.	0.	0.	0.	0.	0.	142.
TOTAL	1409.	372.	137.	66.	15.	6.	4.	0.	1.	0.	2010.
TRIAL (COL/MCD REG)	0.111	0.132	0.106	0.207	0.143	0.000	0.667	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.111	0.115	0.115	0.118	0.118	0.118	0.119	0.119	0.119	0.119	
TRIAL (COL/MCD DEC)	0.119	0.137	0.146	0.203	0.190	0.286	0.667	0.000	0.000	0.000	
T STATISTICS	1.530	1.223	2.351	1.019	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.491	0.545	0.462	0.600	0.667	0.000	0.667	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.491	0.503	0.500	0.505	0.506	0.505	0.506	0.506	0.505	0.505	
NET (COL/MCD DEC)	0.505	0.534	0.519	0.571	0.500	0.400	0.500	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.406	0.352	0.417	0.000	0.000	0.500	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.406	0.396	0.397	0.387	0.386	0.387	0.386	0.386	0.384	0.384	
REPEAT (COL/MCD DEC)	0.384	0.330	0.297	0.077	0.200	0.250	0.000	0.000	0.000	0.000	
T STATISTICS	-1.268	-0.967	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.004	0.019	-0.015	0.061	0.067	-0.167	0.250	0.000	-1.000	0.000	
GAIN (% OF POP ASC)	-0.004	0.001	0.000	0.002	0.003	0.002	0.002	0.002	0.002	0.002	
GAIN (% OF POP DEC)	0.002	0.015	0.009	0.043	0.000	-0.091	0.000	-1.000	-1.000	0.000	
TRIAL (% OF POP REG)	0.093	0.113	0.088	0.182	0.133	0.000	0.500	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.093	0.097	0.096	0.099	0.100	0.099	0.100	0.100	0.100	0.100	
TRIAL (% OF POP DEC)	0.100	0.116	0.122	0.174	0.154	0.182	0.400	0.000	0.000	0.000	
T STATISTICS	1.608	1.193	2.419	0.921	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.159	0.164	0.161	0.182	0.133	0.167	0.500	0.000	0.000	0.000	
NET (% OF POP ASC)	0.159	0.160	0.160	0.161	0.161	0.161	0.161	0.161	0.161	0.161	
NET (% OF POP DEC)	0.161	0.166	0.170	0.185	0.192	0.273	0.400	0.000	0.000	0.000	
T STATISTICS	0.414	0.398	0.630	0.434	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.066	0.051	0.073	0.000	0.000	0.167	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.066	0.063	0.064	0.061	0.061	0.061	0.061	0.061	0.061	0.061	
REPEAT (% OF POP DEC)	0.061	0.050	0.048	0.011	0.038	0.091	0.000	0.000	0.000	0.000	
T STATISTICS	-1.378	-0.883	-2.062	-0.487	0.000	0.000	0.000	0.000	0.000		

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	80.	53.	33.	9.	8.	3.	4.	4.	3.	4.	201.
X -----> O	76.	51.	31.	15.	11.	2.	3.	2.	3.	3.	197.
X -----> X	58.	18.	18.	10.	8.	3.	5.	2.	1.	0.	123.
O -----> O	600.	304.	163.	107.	72.	31.	25.	17.	11.	17.	1347.
O <----> O	65.	29.	13.	10.	6.	8.	3.	5.	1.	2.	142.
TOTAL	879.	455.	258.	151.	105.	47.	40.	30.	19.	26.	2010.
TRIAL (COL/MCD REG)	0.107	0.137	0.158	0.071	0.093	0.071	0.125	0.154	0.200	0.174	
TRIAL (COL/MCD ASC)	0.107	0.118	0.124	0.119	0.118	0.117	0.117	0.117	0.118	0.119	
TRIAL (COL/MCD DEC)	0.119	0.128	0.122	0.100	0.116	0.130	0.156	0.172	0.184	0.174	
NET (COL/MCD REG)	0.513	0.510	0.516	0.375	0.421	0.600	0.571	0.667	0.500	0.571	
NET (COL/MCD ASC)	0.513	0.512	0.512	0.503	0.499	0.500	0.501	0.504	0.504	0.505	
NET (COL/MCD DEC)	0.505	0.500	0.493	0.473	0.520	0.581	0.577	0.579	0.538	0.571	
REPEAT (COL/MCD REG)	0.433	0.261	0.367	0.400	0.421	0.600	0.625	0.500	0.250	0.000	
REPEAT (COL/MCD ASC)	0.433	0.374	0.373	0.375	0.378	0.382	0.388	0.390	0.388	0.384	
REPEAT (COL/MCD DEC)	0.384	0.349	0.402	0.426	0.442	0.458	0.421	0.273	0.143	0.000	
GAIN (% OF POP REG)	0.005	0.004	0.008	-0.040	-0.029	0.021	0.025	0.067	0.000	0.038	
GAIN (% OF POP ASC)	0.005	0.004	0.005	0.001	-0.001	0.000	0.001	0.002	0.002	0.002	
GAIN (% OF POP DEC)	0.002	0.000	-0.003	-0.010	0.007	0.031	0.035	0.040	0.022	0.038	
TRIAL (% OF POP REG)	0.091	0.116	0.128	0.060	0.076	0.064	0.100	0.133	0.158	0.154	
TRIAL (% OF POP ASC)	0.091	0.100	0.104	0.100	0.099	0.098	0.098	0.099	0.099	0.100	
TRIAL (% OF POP DEC)	0.100	0.107	0.101	0.084	0.097	0.111	0.130	0.147	0.156	0.154	
NET (% OF POP REG)	0.157	0.156	0.198	0.126	0.152	0.128	0.225	0.200	0.211	0.154	
NET (% OF POP ASC)	0.157	0.157	0.163	0.160	0.160	0.159	0.160	0.161	0.161	0.161	
NET (% OF POP DEC)	0.161	0.164	0.170	0.153	0.169	0.179	0.200	0.187	0.178	0.154	
REPEAT (% OF POP REG)	0.066	0.040	0.070	0.066	0.076	0.064	0.125	0.067	0.053	0.000	
REPEAT (% OF POP ASC)	0.066	0.057	0.059	0.060	0.061	0.061	0.062	0.062	0.062	0.061	
REPEAT (% OF POP DEC)	0.061	0.057	0.070	0.069	0.071	0.068	0.070	0.040	0.022	0.000	

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
0 -----> X	10.	7.	9.	15.	56.	86.	16.	2.	0.	0.	0.	201.
X -----> 0	7.	7.	12.	23.	56.	75.	12.	4.	0.	0.	1.	197.
X -----> X	5.	7.	12.	16.	19.	59.	5.	0.	0.	0.	0.	123.
0 -----> 0	64.	44.	95.	144.	286.	594.	94.	20.	6.	0.	0.	1347.
0 <----> 0	11.	6.	11.	10.	29.	70.	5.	0.	0.	0.	0.	142.
TOTAL	97.	71.	139.	208.	446.	884.	132.	26.	6.	0.	1.	2010.
TRIAL (COL/MCD REG)	0.118	0.123	0.078	0.089	0.151	0.115	0.139	0.091	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.118	0.120	0.101	0.096	0.122	0.118	0.120	0.119	0.119	0.119	0.119	
TRIAL (COL/MCD DEC)	0.119	0.119	0.119	0.122	0.127	0.116	0.126	0.071	0.000	0.000	0.000	
NET (COL/MCD REG)	0.588	0.500	0.429	0.395	0.500	0.534	0.571	0.333	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.588	0.548	0.590	0.456	0.480	0.504	0.509	0.506	0.506	0.506	0.505	
NET (COL/MCD DEC)	0.505	0.501	0.501	0.506	0.519	0.531	0.514	0.286	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.417	0.500	0.500	0.410	0.253	0.440	0.294	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.417	0.462	0.480	0.449	0.360	0.396	0.390	0.386	0.386	0.386	0.384	
REPEAT (COL/MCD DEC)	0.384	0.383	0.378	0.367	0.359	0.410	0.227	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.031	0.000	-0.022	-0.038	0.000	0.012	0.030	-0.077	0.000	0.000	-1.000	
GAIN (% OF POP ASC)	0.031	0.018	0.000	-0.016	-0.008	0.002	0.004	0.002	0.002	0.002	0.002	
GAIN (% OF POP DEC)	0.002	0.001	0.001	0.002	0.008	0.011	0.006	-0.091	-0.143	-1.000	-1.000	
TRIAL (% OF POP REG)	0.103	0.099	0.065	0.072	0.126	0.097	0.121	0.077	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.103	0.101	0.085	0.080	0.101	0.099	0.101	0.100	0.100	0.100	0.100	
TRIAL (% OF POP DEC)	0.100	0.100	0.100	0.103	0.107	0.099	0.109	0.061	0.000	0.000	0.000	
NET (% OF POP REG)	0.155	0.197	0.151	0.149	0.168	0.164	0.159	0.077	0.000	0.000	0.000	
NET (% OF POP ASC)	0.155	0.173	0.163	0.157	0.162	0.163	0.163	0.162	0.161	0.161	0.161	
NET (% OF POP DEC)	0.161	0.162	0.160	0.161	0.163	0.160	0.139	0.061	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.052	0.099	0.086	0.077	0.043	0.067	0.038	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.052	0.071	0.078	0.078	0.061	0.064	0.062	0.061	0.061	0.061	0.061	
REPEAT (% OF POP DEC)	0.061	0.062	0.060	0.058	0.056	0.061	0.030	0.000	0.000	0.000	0.000	

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	1.	0.	5.	15.	23.	118.	26.	10.	3.	0.	0.	201.
X -----> O	0.	0.	8.	10.	36.	112.	22.	4.	4.	0.	1.	197.
X -----> X	2.	1.	4.	14.	23.	69.	10.	0.	0.	0.	0.	123.
O -----> O	4.	6.	43.	142.	187.	760.	149.	42.	13.	0.	1.	1347.
O <----> O	2.	1.	5.	13.	11.	97.	10.	3.	0.	0.	0.	142.
TOTAL	9.	8.	65.	194.	280.	1156.	217.	59.	20.	0.	2.	2010.
TRIAL (COL/MCD REG)	0.143	0.000	0.094	0.088	0.104	0.121	0.141	0.182	0.188	0.000	0.000	
TRIAL (COL/MCD ASC)	0.143	0.071	0.090	0.089	0.096	0.113	0.116	0.118	0.119	0.119	0.119	
TRIAL (COL/MCD DEC)	0.119	0.119	0.119	0.120	0.124	0.127	0.152	0.181	0.176	0.000	0.000	
T STATISTICS	0.000	0.000	0.758	1.555	1.770	1.762	1.640	0.000	0.000	0.000		
NET (COL/MCD REG)	1.000	0.000	0.385	0.600	0.390	0.513	0.542	0.714	0.429	0.000	0.000	
NET (COL/MCD ASC)	1.000	1.000	0.429	0.538	0.449	0.494	0.500	0.508	0.506	0.506	0.505	
NET (COL/MCD DEC)	0.505	0.504	0.504	0.508	0.501	0.523	0.557	0.591	0.375	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	1.000	0.333	0.583	0.390	0.381	0.313	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	1.000	1.000	0.467	0.538	0.449	0.405	0.395	0.390	0.386	0.386	0.384	
REPEAT (COL/MCD DEC)	0.384	0.381	0.379	0.380	0.363	0.356	0.244	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	-1.825	-1.538	-1.983	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.111	0.000	-0.046	0.026	-0.046	0.005	0.018	0.102	-0.050	0.000	-0.500	
GAIN (% OF POP ASC)	0.111	0.059	-0.024	0.011	-0.018	-0.002	0.000	0.003	0.002	0.002	0.002	
GAIN (% OF POP DEC)	0.002	0.001	0.002	0.003	0.001	0.010	0.027	0.049	-0.091	-0.500	-0.500	
TRIAL (% OF POP REG)	0.111	0.000	0.077	0.077	0.082	0.102	0.120	0.169	0.150	0.000	0.000	
TRIAL (% OF POP ASC)	0.111	0.059	0.073	0.076	0.079	0.095	0.097	0.100	0.100	0.100	0.100	
TRIAL (% OF POP DEC)	0.100	0.100	0.100	0.101	0.104	0.108	0.131	0.160	0.136	0.000	0.000	
T STATISTICS	0.000	0.000	0.827	1.426	1.928	1.925	1.853	0.572	0.000	0.000		
NET (% OF POP REG)	0.333	0.125	0.138	0.149	0.164	0.162	0.166	0.169	0.150	0.000	0.000	
NET (% OF POP ASC)	0.333	0.235	0.159	0.152	0.158	0.161	0.161	0.161	0.161	0.161	0.161	
NET (% OF POP DEC)	0.161	0.160	0.161	0.161	0.163	0.162	0.164	0.160	0.136	0.000	0.000	
T STATISTICS	0.000	0.000	0.067	0.439	0.220	0.165	-0.017	-0.318	0.000	0.000		
REPEAT (% OF POP REG)	0.222	0.125	0.062	0.072	0.082	0.060	0.046	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.222	0.176	0.085	0.076	0.079	0.066	0.064	0.062	0.061	0.061	0.061	
REPEAT (% OF POP DEC)	0.061	0.060	0.060	0.060	0.059	0.054	0.034	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	-0.932	-1.111	-2.075	-2.157	-2.346	-1.204	0.000	0.000		

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	131.	4.	8.	21.	1.	19.	4.	1.	0.	12.	201.
X -----> O	137.	6.	9.	15.	4.	10.	3.	2.	1.	10.	197.
X -----> X	93.	3.	11.	5.	1.	5.	1.	0.	0.	4.	123.
O -----> O	947.	26.	85.	68.	25.	77.	27.	9.	1.	82.	1347.
O <----> O	105.	4.	10.	9.	1.	8.	2.	0.	0.	3.	142.
TOTAL	1413.	43.	123.	118.	32.	119.	37.	12.	2.	111.	2010.
TRIAL (COL/MCD REG)	0.111	0.118	0.078	0.214	0.037	0.183	0.121	0.100	0.000	0.124	
TRIAL (COL/MCD ASC)	0.111	0.111	0.108	0.116	0.114	0.119	0.119	0.119	0.119	0.119	
TRIAL (COL/MCD DEC)	0.119	0.138	0.140	0.157	0.136	0.147	0.121	0.120	0.122	0.124	
T STATISTICS	1.591	1.631	2.543	0.951	1.464	0.063	0.048	0.111	0.150		
NET (COL/MCD REG)	0.489	0.400	0.471	0.583	0.200	0.655	0.571	0.333	0.000	0.545	
NET (COL/MCD ASC)	0.489	0.486	0.485	0.495	0.491	0.504	0.505	0.504	0.503	0.505	
NET (COL/MCD DEC)	0.505	0.538	0.550	0.563	0.552	0.581	0.515	0.500	0.522	0.545	
REPEAT (COL/MCD REG)	0.404	0.333	0.550	0.250	0.200	0.333	0.250	0.000	0.000	0.286	
REPEAT (COL/MCD ASC)	0.404	0.402	0.413	0.401	0.398	0.395	0.393	0.390	0.389	0.384	
REPEAT (COL/MCD DEC)	0.384	0.333	0.333	0.262	0.268	0.278	0.238	0.235	0.267	0.286	
T STATISTICS	-1.174	0.000	-1.321	-1.113	-0.923	-1.201	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.004	-0.047	-0.008	0.051	-0.094	0.076	0.027	-0.083	-0.500	0.018	
GAIN (% OF POP ASC)	-0.004	-0.005	-0.006	-0.002	-0.003	0.002	0.002	0.002	0.001	0.002	
GAIN (% OF POP DEC)	0.002	0.017	0.022	0.030	0.022	0.036	0.006	0.000	0.009	0.018	
TRIAL (% OF POP REG)	0.093	0.093	0.065	0.178	0.031	0.160	0.108	0.083	0.000	0.108	
TRIAL (% OF POP ASC)	0.093	0.093	0.091	0.097	0.095	0.100	0.100	0.100	0.100	0.100	
TRIAL (% OF POP DEC)	0.100	0.117	0.119	0.135	0.118	0.128	0.105	0.104	0.106	0.108	
T STATISTICS	1.676	1.764	2.699	1.169	1.694	0.219	0.154	0.226	0.293		
NET (% OF POP REG)	0.159	0.163	0.154	0.220	0.063	0.202	0.135	0.083	0.000	0.144	
NET (% OF POP ASC)	0.159	0.159	0.158	0.163	0.161	0.163	0.163	0.162	0.162	0.161	
NET (% OF POP DEC)	0.161	0.168	0.168	0.172	0.153	0.164	0.136	0.136	0.142	0.144	
T STATISTICS	0.500	0.502	0.669	-0.419	0.123	-0.917	-0.791	-0.583	-0.503		
REPEAT (% OF POP REG)	0.066	0.070	0.089	0.042	0.031	0.042	0.027	0.000	0.000	0.036	
REPEAT (% OF POP ASC)	0.066	0.066	0.068	0.066	0.065	0.064	0.063	0.063	0.063	0.061	
REPEAT (% OF POP DEC)	0.061	0.050	0.049	0.037	0.035	0.036	0.031	0.032	0.035	0.036	
T STATISTICS	-1.330	-1.437	-2.352	-2.093	-1.931	-1.680	-1.406	-1.178	-1.138		

BANNER CHARMIN COTTONELLE AVG 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

SWITCHING TOWARD AND COUPON USAGE = 56
SWITCHING AWAY AND COUPON USAGE = 40
LOYAY TO TEST AND COUPON USAGE = 33
OTHER SWITCHING AND COUPON USAGE = 191
LOYAL TO OTHER AND COUPON USAGE = 43

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	20.	14.	5.	7.	4.	0.	2.	0.	1.	3.	56.
X -----> O	8.	10.	6.	6.	4.	0.	3.	1.	1.	1.	40.
X -----> X	11.	7.	4.	2.	3.	1.	2.	2.	1.	0.	33.
O -----> O	59.	43.	25.	24.	26.	2.	6.	2.	1.	3.	191.
O <----> O	13.	10.	5.	3.	2.	0.	2.	4.	2.	2.	43.
TOTAL	111.	84.	45.	42.	39.	3.	15.	9.	6.	9.	363.
TRIAL (COL/MCD REG)	0.217	0.209	0.143	0.206	0.125	0.000	0.200	0.000	0.250	0.375	
TRIAL (COL/MCD ASC)	0.217	0.214	0.201	0.202	0.192	0.191	0.191	0.187	0.188	0.193	
TRIAL (COL/MCD DEC)	0.193	0.182	0.168	0.177	0.161	0.200	0.214	0.222	0.333	0.375	
NET (COL/MCD REG)	0.714	0.583	0.455	0.538	0.500	0.000	0.400	0.000	0.500	0.750	
NET (COL/MCD ASC)	0.714	0.654	0.619	0.605	0.595	0.595	0.584	0.578	0.576	0.583	
NET (COL/MCD DEC)	0.583	0.529	0.500	0.515	0.500	0.500	0.500	0.571	0.667	0.750	
REPEAT (COL/MCD REG)	0.579	0.412	0.400	0.250	0.429	1.000	0.400	0.667	0.500	0.000	
REPEAT (COL/MCD ASC)	0.579	0.500	0.478	0.444	0.443	0.452	0.448	0.457	0.458	0.452	
REPEAT (COL/MCD DEC)	0.452	0.407	0.405	0.407	0.474	0.500	0.455	0.500	0.333	0.000	
GAIN (% OF POP REG)	0.108	0.048	-0.022	0.024	0.000	0.000	-0.067	-0.111	0.000	0.222	
GAIN (% OF POP ASC)	0.108	0.082	0.063	0.057	0.050	0.049	0.044	0.040	0.040	0.044	
GAIN (% OF POP DEC)	0.044	0.016	0.000	0.008	0.000	0.000	0.000	0.042	0.133	0.222	
TRIAL (% OF POP REG)	0.180	0.167	0.111	0.167	0.103	0.000	0.133	0.000	0.167	0.333	
TRIAL (% OF POP ASC)	0.180	0.174	0.162	0.163	0.156	0.154	0.153	0.149	0.150	0.154	
TRIAL (% OF POP DEC)	0.154	0.143	0.131	0.138	0.123	0.143	0.154	0.167	0.267	0.333	
NET (% OF POP REG)	0.279	0.250	0.200	0.214	0.179	0.333	0.267	0.222	0.333	0.333	
NET (% OF POP ASC)	0.279	0.267	0.254	0.248	0.240	0.241	0.242	0.241	0.243	0.245	
NET (% OF POP DEC)	0.245	0.230	0.220	0.228	0.235	0.286	0.282	0.292	0.333	0.333	
REPEAT (% OF POP REG)	0.099	0.083	0.089	0.048	0.077	0.333	0.133	0.222	0.167	0.000	
REPEAT (% OF POP ASC)	0.099	0.092	0.092	0.085	0.084	0.086	0.088	0.092	0.093	0.091	
REPEAT (% OF POP DEC)	0.091	0.087	0.089	0.089	0.111	0.143	0.128	0.125	0.067	0.000	

BANNER CHARMIN COTTONELLE AVG 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	38.	10.	4.	3.	1.	0.	0.	0.	0.	0.	56.
X -----> O	26.	8.	3.	2.	1.	0.	0.	0.	0.	0.	40.
X -----> X	24.	7.	2.	0.	0.	0.	0.	0.	0.	0.	33.
O -----> O	131.	37.	16.	6.	1.	0.	0.	0.	0.	0.	191.
O <----> O	30.	6.	5.	2.	0.	0.	0.	0.	0.	0.	43.
TOTAL	249.	68.	30.	13.	3.	0.	0.	0.	0.	0.	363.
TRIAL (COL/MCD REG)	0.191	0.189	0.160	0.273	0.500	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.191	0.190	0.188	0.191	0.193	0.193	0.193	0.193	0.193	0.193	
TRIAL (COL/MCD DEC)	0.193	0.198	0.211	0.308	0.500	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.137	0.292	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.594	0.556	0.571	0.600	0.500	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.594	0.585	0.584	0.585	0.583	0.583	0.583	0.583	0.583	0.583	
NET (COL/MCD DEC)	0.583	0.563	0.571	0.571	0.500	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.480	0.467	0.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.480	0.477	0.471	0.458	0.452	0.452	0.452	0.452	0.452	0.452	
REPEAT (COL/MCD DEC)	0.452	0.391	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.707	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.048	0.029	0.033	0.077	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.048	0.044	0.043	0.044	0.044	0.044	0.044	0.044	0.044	0.044	
GAIN (% OF POP DEC)	0.044	0.035	0.043	0.063	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.153	0.147	0.133	0.231	0.333	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.153	0.151	0.150	0.153	0.154	0.154	0.154	0.154	0.154	0.154	
TRIAL (% OF POP DEC)	0.154	0.158	0.174	0.250	0.333	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.129	0.395	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.249	0.250	0.200	0.231	0.333	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.249	0.249	0.245	0.244	0.245	0.245	0.245	0.245	0.245	0.245	
NET (% OF POP DEC)	0.245	0.237	0.217	0.250	0.333	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.250	-0.469	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.096	0.103	0.067	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.096	0.098	0.095	0.092	0.091	0.091	0.091	0.091	0.091	0.091	
REPEAT (% OF POP DEC)	0.091	0.079	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.536	-1.197	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

BANNER CHARMIN COTTONELLE AVG 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
C -----> X	23.	15.	9.	2.	2.	1.	2.	0.	0.	2.	56.
X -----> O	9.	12.	7.	5.	4.	1.	0.	1.	1.	0.	40.
X -----> X	12.	7.	4.	3.	2.	2.	2.	1.	0.	0.	33.
O -----> O	72.	48.	24.	27.	10.	4.	3.	1.	1.	1.	191.
O <----> O	15.	10.	4.	3.	1.	5.	2.	3.	0.	0.	43.
TOTAL	131.	92.	48.	40.	19.	13.	9.	6.	2.	3.	363.
TRIAL (COL/MCD REG)	0.209	0.205	0.243	0.063	0.154	0.100	0.286	0.000	0.000	0.667	
TRIAL (COL/MCD ASC)	0.209	0.208	0.214	0.194	0.192	0.189	0.191	0.189	0.188	0.193	
TRIAL (COL/MCD DEC)	0.193	0.183	0.168	0.129	0.184	0.200	0.267	0.250	0.500	0.667	
NET (COL/MCD REG)	0.719	0.556	0.563	0.286	0.333	0.500	1.000	0.000	0.000	1.000	
NET (COL/MCD ASC)	0.719	0.644	0.627	0.598	0.580	0.578	0.587	0.581	0.574	0.583	
NET (COL/MCD DEC)	0.583	0.516	0.486	0.429	0.500	0.625	0.667	0.500	0.667	1.000	
REPEAT (COL/MCD REG)	0.571	0.368	0.364	0.375	0.333	0.667	1.000	0.500	0.000	0.000	
REPEAT (COL/MCD ASC)	0.571	0.475	0.451	0.441	0.431	0.441	0.457	0.458	0.452	0.452	
REPEAT (COL/MCD DEC)	0.452	0.404	0.424	0.455	0.500	0.625	0.600	0.333	0.000	0.000	
GAIN (% OF POP REG)	0.107	0.033	0.042	-0.075	-0.105	0.000	0.222	-0.167	-0.500	0.667	
GAIN (% OF POP ASC)	0.107	0.076	0.070	0.051	0.042	0.041	0.045	0.042	0.039	0.044	
GAIN (% OF POP DEC)	0.044	0.009	-0.007	-0.033	0.000	0.061	0.100	0.000	0.200	0.667	
TRIAL (% OF POP REG)	0.176	0.163	0.188	0.050	0.105	0.077	0.222	0.000	0.000	0.667	
TRIAL (% OF POP ASC)	0.176	0.170	0.173	0.158	0.155	0.152	0.153	0.151	0.150	0.154	
TRIAL (% OF POP DEC)	0.154	0.142	0.129	0.098	0.135	0.152	0.200	0.182	0.400	0.667	
NET (% OF POP REG)	0.267	0.239	0.271	0.125	0.211	0.231	0.444	0.167	0.000	0.667	
NET (% OF POP ASC)	0.267	0.256	0.258	0.241	0.239	0.239	0.244	0.243	0.242	0.245	
NET (% OF POP DEC)	0.245	0.233	0.229	0.207	0.269	0.303	0.350	0.273	0.400	0.667	
REPEAT (% OF POP REG)	0.092	0.076	0.083	0.075	0.105	0.154	0.222	0.167	0.000	0.000	
REPEAT (% OF POP ASC)	0.092	0.085	0.085	0.084	0.085	0.087	0.091	0.092	0.092	0.091	
REPEAT (% OF POP DEC)	0.091	0.091	0.100	0.109	0.135	0.152	0.150	0.091	0.000	0.000	

BANNER CHARMIN COTTONELLE AVG 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	3.	2.	3.	3.	15.	25.	4.	1.	0.	0.	0.	56.
X -----> O	1.	4.	2.	7.	14.	10.	1.	1.	0.	0.	0.	40.
X -----> X	3.	3.	1.	6.	7.	12.	1.	0.	0.	0.	0.	33.
O -----> O	5.	10.	17.	27.	40.	73.	13.	5.	1.	0.	0.	191.
O <----> O	5.	2.	5.	5.	8.	16.	2.	0.	0.	0.	0.	43.
TOTAL	17.	21.	28.	48.	84.	136.	21.	7.	1.	0.	0.	363.
TRIAL (COL/MCD REG)	0.231	0.143	0.120	0.086	0.238	0.219	0.211	0.167	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.231	0.185	0.154	0.126	0.173	0.193	0.194	0.194	0.193	0.193	0.193	
TRIAL (COL/MCD DEC)	0.193	0.191	0.194	0.202	0.222	0.214	0.192	0.143	0.000	0.000	0.000	
NET (COL/MCD REG)	0.750	0.333	0.600	0.300	0.517	0.714	0.800	0.500	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.750	0.500	0.533	0.440	0.481	0.573	0.585	0.583	0.583	0.583	0.583	
NET (COL/MCD DEC)	0.583	0.576	0.593	0.593	0.634	0.714	0.714	0.500	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.750	0.429	0.333	0.462	0.333	0.545	0.500	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.750	0.545	0.500	0.481	0.417	0.457	0.458	0.452	0.452	0.452	0.452	
REPEAT (COL/MCD DEC)	0.452	0.435	0.435	0.441	0.435	0.520	0.333	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.118	-0.095	0.036	-0.083	0.012	0.110	0.143	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.118	0.000	0.015	-0.026	-0.010	0.039	0.045	0.044	0.044	0.044	0.044	
GAIN (% OF POP DEC)	0.044	0.040	0.049	0.051	0.076	0.109	0.103	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.176	0.095	0.107	0.063	0.179	0.184	0.190	0.143	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.176	0.132	0.121	0.096	0.131	0.153	0.155	0.155	0.154	0.154	0.154	
TRIAL (% OF POP DEC)	0.154	0.153	0.157	0.162	0.181	0.182	0.172	0.125	0.000	0.000	0.000	
NET (% OF POP REG)	0.353	0.238	0.143	0.188	0.262	0.272	0.238	0.143	0.000	0.000	0.000	
NET (% OF POP ASC)	0.353	0.289	0.227	0.211	0.232	0.249	0.248	0.246	0.245	0.245	0.245	
NET (% OF POP DEC)	0.245	0.240	0.240	0.249	0.261	0.261	0.207	0.125	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.176	0.143	0.036	0.125	0.083	0.088	0.048	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.176	0.158	0.106	0.114	0.101	0.096	0.093	0.091	0.091	0.091	0.091	
REPEAT (% OF POP DEC)	0.091	0.087	0.083	0.088	0.080	0.079	0.034	0.000	0.000	0.000	0.000	

BANNER CHARMIN COTTONELLE AVG 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
0 -----> X	0.	0.	0.	5.	6.	34.	7.	3.	1.	0.	0.	56.
X -----> 0	0.	0.	2.	2.	11.	19.	4.	2.	0.	0.	0.	40.
X -----> X	1.	1.	2.	4.	7.	16.	2.	0.	0.	0.	0.	33.
0 -----> 0	0.	1.	7.	24.	35.	89.	23.	10.	2.	0.	0.	191.
0 <----> 0	1.	0.	2.	6.	2.	26.	6.	0.	0.	0.	0.	43.
TOTAL	2.	2.	13.	41.	61.	184.	42.	15.	3.	0.	0.	363.
TRIAL (COL/MCD REG)	0.000	0.000	0.000	0.143	0.140	0.228	0.194	0.231	0.333	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.000	0.000	0.109	0.124	0.189	0.190	0.192	0.193	0.193	0.193	
TRIAL (COL/MCD DEC)	0.193	0.194	0.194	0.201	0.209	0.224	0.212	0.250	0.333	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	1.581	1.995	0.372	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.000	0.000	0.000	0.714	0.353	0.642	0.636	0.600	1.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.000	0.000	0.556	0.423	0.570	0.578	0.579	0.583	0.583	0.583	
NET (COL/MCD DEC)	0.583	0.583	0.583	0.596	0.586	0.643	0.647	0.667	1.000	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	1.000	0.500	0.667	0.389	0.457	0.333	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	1.000	1.000	0.667	0.667	0.500	0.477	0.465	0.452	0.452	0.452	0.452	
REPEAT (COL/MCD DEC)	0.452	0.444	0.437	0.433	0.410	0.419	0.250	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	-0.642	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	-0.154	0.073	-0.082	0.082	0.071	0.067	0.333	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	-0.118	0.017	-0.034	0.036	0.041	0.042	0.044	0.044	0.044	
GAIN (% OF POP DEC)	0.044	0.044	0.045	0.052	0.049	0.082	0.083	0.111	0.333	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.000	0.000	0.122	0.098	0.185	0.167	0.200	0.333	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.000	0.086	0.092	0.149	0.151	0.153	0.154	0.154	0.154	
TRIAL (% OF POP DEC)	0.154	0.155	0.156	0.162	0.167	0.184	0.183	0.222	0.333	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	1.566	2.278	0.682	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.500	0.500	0.154	0.220	0.213	0.272	0.214	0.200	0.333	0.000	0.000	
NET (% OF POP ASC)	0.500	0.500	0.235	0.224	0.218	0.251	0.246	0.244	0.245	0.245	0.245	
NET (% OF POP DEC)	0.245	0.244	0.242	0.246	0.249	0.258	0.217	0.222	0.333	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.406	0.826	-0.562	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.500	0.500	0.154	0.098	0.115	0.087	0.048	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.500	0.500	0.235	0.138	0.126	0.102	0.096	0.092	0.091	0.091	0.091	
REPEAT (% OF POP DEC)	0.091	0.089	0.086	0.084	0.082	0.074	0.033	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	-1.359	-1.626	-1.698	0.000	0.000	0.000	0.000		

BANNER CHARMIN COTTONELLE AVG 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	38.	2.	1.	5.	0.	5.	1.	1.	0.	3.	56.
X -----> O	26.	2.	2.	5.	1.	2.	1.	0.	0.	1.	40.
X -----> X	24.	2.	3.	2.	0.	1.	0.	0.	0.	1.	33.
O -----> O	131.	2.	17.	8.	0.	14.	4.	2.	0.	13.	191.
O <----> O	39.	2.	4.	2.	0.	3.	0.	0.	0.	2.	43.
TOTAL	249.	10.	27.	22.	1.	25.	6.	3.	0.	20.	363.
TRIAL (COL/MCD REG)	0.191	0.333	0.045	0.333	0.000	0.227	0.200	0.333	0.000	0.167	
TRIAL (COL/MCD ASC)	0.191	0.195	0.181	0.190	0.190	0.193	0.193	0.195	0.195	0.193	
TRIAL (COL/MCD DEC)	0.193	0.198	0.188	0.238	0.208	0.208	0.192	0.190	0.167	0.167	
T STATISTICS	0.137	-0.135	1.023	0.293	0.293	-0.011	-0.032	0.000	0.000		
NET (COL/MCD REG)	0.594	0.500	0.333	0.500	0.000	0.714	0.500	1.000	0.000	0.750	
NET (COL/MCD ASC)	0.594	0.588	0.577	0.568	0.561	0.573	0.571	0.576	0.576	0.583	
NET (COL/MCD DEC)	0.583	0.563	0.571	0.600	0.667	0.714	0.714	0.800	0.750	0.750	
REPEAT (COL/MCD REG)	0.480	0.500	0.600	0.286	0.000	0.333	0.000	0.000	0.000	0.500	
REPEAT (COL/MCD ASC)	0.480	0.481	0.492	0.470	0.463	0.457	0.451	0.451	0.451	0.452	
REPEAT (COL/MCD DEC)	0.452	0.391	0.368	0.286	0.286	0.333	0.333	0.500	0.500	0.500	
T STATISTICS	-0.707	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.048	0.000	-0.037	0.000	-1.000	0.120	0.000	0.333	0.000	0.100	
GAIN (% OF POP ASC)	0.048	0.046	0.038	0.036	0.032	0.039	0.038	0.041	0.041	0.044	
GAIN (% OF POP DEC)	0.044	0.035	0.038	0.065	0.091	0.111	0.103	0.130	0.100	0.100	
TRIAL (% OF POP REG)	0.153	0.200	0.037	0.227	0.000	0.200	0.167	0.333	0.000	0.150	
TRIAL (% OF POP ASC)	0.153	0.154	0.143	0.149	0.149	0.153	0.153	0.155	0.155	0.154	
TRIAL (% OF POP DEC)	0.154	0.158	0.154	0.195	0.182	0.185	0.172	0.174	0.150	0.150	
T STATISTICS	0.129	-0.014	1.109	0.614	0.682	0.282	0.269	-0.054	-0.054		
NET (% OF POP REG)	0.249	0.400	0.148	0.318	0.000	0.240	0.167	0.333	0.000	0.200	
NET (% OF POP ASC)	0.249	0.255	0.245	0.250	0.249	0.249	0.247	0.248	0.248	0.245	
NET (% OF POP DEC)	0.245	0.237	0.221	0.247	0.218	0.222	0.207	0.217	0.200	0.200	
T STATISTICS	-0.250	-0.674	0.036	-0.505	-0.425	-0.500	-0.320	-0.483	-0.483		
REPEAT (% OF POP REG)	0.096	0.200	0.111	0.091	0.000	0.040	0.000	0.000	0.000	0.050	
REPEAT (% OF POP ASC)	0.096	0.100	0.101	0.101	0.100	0.096	0.094	0.093	0.093	0.091	
REPEAT (% OF POP DEC)	0.091	0.079	0.067	0.052	0.036	0.037	0.034	0.043	0.050	0.050	
T STATISTICS	-0.536	-0.991	-1.340	-1.528	-1.493	-1.102	-0.818	-0.655	-0.655		

BANNER CHARMIN COTTONELLE AVG 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

SWITCHING TOWARD AND COUPON USAGE = 0
SWITCHING AWAY AND COUPON USAGE = 0
LOYAY TO TEST AND COUPON USAGE = 0
OTHER SWITCHING AND COUPON USAGE = 0
LOYAL TO OTHER AND COUPON USAGE = 0

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	48.	38.	15.	15.	8.	5.	4.	3.	0.	9.	145.
X -----> O	58.	41.	15.	13.	12.	5.	1.	2.	1.	9.	157.
X -----> X	43.	12.	10.	8.	6.	5.	0.	3.	2.	1.	90.
O -----> O	459.	240.	140.	104.	61.	54.	20.	18.	10.	50.	1156.
O <----> O	49.	14.	6.	13.	6.	0.	2.	4.	2.	3.	99.
TOTAL	657.	345.	186.	153.	93.	69.	27.	30.	15.	72.	1647.
TRIAL (COL/MCD REG)	0.086	0.130	0.093	0.114	0.107	0.085	0.154	0.120	0.000	0.145	
TRIAL (COL/MCD ASC)	0.086	0.101	0.100	0.102	0.102	0.101	0.102	0.103	0.102	0.104	
TRIAL (COL/MCD DEC)	0.104	0.115	0.107	0.113	0.112	0.114	0.128	0.121	0.122	0.145	
NET (COL/MCD REG)	0.453	0.481	0.500	0.536	0.400	0.500	0.800	0.600	0.000	0.500	
NET (COL/MCD ASC)	0.453	0.465	0.470	0.477	0.471	0.473	0.478	0.481	0.479	0.480	
NET (COL/MCD DEC)	0.480	0.495	0.504	0.506	0.492	0.538	0.552	0.500	0.474	0.500	
REPEAT (COL/MCD REG)	0.426	0.226	0.400	0.381	0.333	0.500	0.000	0.600	0.667	0.100	
REPEAT (COL/MCD ASC)	0.426	0.357	0.363	0.365	0.362	0.368	0.367	0.372	0.376	0.364	
REPEAT (COL/MCD DEC)	0.364	0.322	0.376	0.368	0.362	0.379	0.316	0.333	0.231	0.100	
GAIN (% OF POP REG)	-0.015	-0.009	0.000	0.013	-0.043	0.000	0.111	0.033	-0.067	0.000	
GAIN (% OF POP ASC)	-0.015	-0.013	-0.011	-0.008	-0.010	-0.010	-0.008	-0.007	-0.008	-0.007	
GAIN (% OF POP DEC)	-0.007	-0.002	0.002	0.002	-0.003	0.014	0.021	0.000	-0.011	0.000	
TRIAL (% OF POP REG)	0.073	0.110	0.081	0.098	0.086	0.072	0.148	0.100	0.000	0.125	
TRIAL (% OF POP ASC)	0.073	0.086	0.085	0.087	0.086	0.086	0.087	0.087	0.086	0.088	
TRIAL (% OF POP DEC)	0.088	0.098	0.091	0.096	0.095	0.099	0.111	0.103	0.103	0.125	
NET (% OF POP REG)	0.139	0.145	0.134	0.150	0.151	0.145	0.148	0.200	0.133	0.139	
NET (% OF POP ASC)	0.139	0.141	0.140	0.141	0.142	0.142	0.142	0.143	0.143	0.143	
NET (% OF POP DEC)	0.143	0.145	0.146	0.150	0.150	0.150	0.153	0.154	0.138	0.139	
REPEAT (% OF POP REG)	0.065	0.035	0.054	0.052	0.065	0.072	0.000	0.100	0.133	0.014	
REPEAT (% OF POP ASC)	0.065	0.055	0.055	0.054	0.055	0.056	0.055	0.056	0.057	0.055	
REPEAT (% OF POP DEC)	0.055	0.047	0.054	0.054	0.056	0.052	0.042	0.051	0.034	0.014	

BANNER CHARMIN COTTONELLE AVG 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	93.	32.	8.	9.	1.	0.	2.	0.	0.	0.	145.
X -----> O	110.	27.	11.	6.	0.	1.	1.	0.	1.	0.	157.
X -----> X	69.	12.	8.	0.	0.	1.	0.	0.	0.	0.	90.
O -----> O	815.	214.	76.	36.	10.	4.	1.	0.	0.	0.	1156.
O <----> O	73.	19.	4.	2.	1.	0.	0.	0.	0.	0.	99.
TOTAL	1160.	304.	107.	53.	12.	6.	4.	0.	1.	0.	1647.
TRIAL (COL/MCD REG)	0.095	0.121	0.091	0.191	0.083	0.000	0.667	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.095	0.100	0.100	0.103	0.103	0.102	0.104	0.104	0.104	0.104	
TRIAL (COL/MCD DEC)	0.104	0.124	0.130	0.182	0.158	0.286	0.667	0.000	0.000	0.000	
T STATISTICS	1.648	1.135	2.137	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.458	0.542	0.421	0.600	1.000	0.000	0.667	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.458	0.477	0.473	0.480	0.481	0.480	0.482	0.482	0.480	0.480	
NET (COL/MCD DEC)	0.480	0.525	0.500	0.571	0.500	0.400	0.500	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.385	0.308	0.421	0.000	0.000	0.500	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.385	0.372	0.376	0.366	0.366	0.367	0.366	0.366	0.364	0.364	
REPEAT (COL/MCD DEC)	0.364	0.309	0.310	0.100	0.250	0.250	0.000	0.000	0.000	0.000	
T STATISTICS	-1.118	-0.528	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.015	0.016	-0.028	0.057	0.083	-0.167	0.250	0.000	-1.000	0.000	
GAIN (% OF POP ASC)	-0.015	-0.008	-0.010	-0.007	-0.007	-0.007	-0.007	-0.007	-0.007	-0.007	
GAIN (% OF POP DEC)	-0.007	0.010	0.000	0.039	0.000	-0.091	0.000	-1.000	-1.000	0.000	
TRIAL (% OF POP REG)	0.080	0.105	0.075	0.170	0.083	0.000	0.500	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.080	0.085	0.085	0.087	0.087	0.087	0.088	0.088	0.088	0.088	
TRIAL (% OF POP DEC)	0.088	0.107	0.109	0.158	0.130	0.182	0.400	0.000	0.000	0.000	
T STATISTICS	1.739	1.076	2.201	0.723	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.140	0.145	0.150	0.170	0.083	0.167	0.500	0.000	0.000	0.000	
NET (% OF POP ASC)	0.140	0.141	0.141	0.142	0.142	0.142	0.143	0.143	0.143	0.143	
NET (% OF POP DEC)	0.143	0.150	0.158	0.171	0.174	0.273	0.400	0.000	0.000	0.000	
T STATISTICS	0.542	0.648	0.724	0.431	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.059	0.039	0.075	0.000	0.000	0.167	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.059	0.055	0.057	0.055	0.054	0.055	0.055	0.055	0.055	0.055	
REPEAT (% OF POP DEC)	0.055	0.043	0.049	0.013	0.043	0.091	0.000	0.000	0.000	0.000	
T STATISTICS	-1.333	-0.345	-1.629	-0.237	0.000	0.000	0.000	0.000	0.000		

BANNER CHARMIN COTTONELLE AVG 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	57.	38.	24.	7.	6.	2.	2.	4.	3.	2.	145.
X -----> O	67.	39.	24.	10.	7.	1.	3.	1.	2.	3.	157.
X -----> X	46.	11.	14.	7.	6.	1.	3.	1.	1.	0.	90.
O -----> O	528.	256.	139.	80.	62.	27.	22.	16.	10.	16.	1156.
O <----> O	50.	19.	9.	7.	5.	3.	1.	2.	1.	2.	99.
TOTAL	748.	363.	210.	111.	86.	34.	31.	24.	17.	23.	1647.
TRIAL (COL/MCD REG)	0.090	0.121	0.140	0.074	0.082	0.063	0.080	0.182	0.214	0.100	
TRIAL (COL/MCD ASC)	0.090	0.100	0.106	0.104	0.103	0.102	0.101	0.102	0.104	0.104	
TRIAL (COL/MCD DEC)	0.104	0.115	0.111	0.093	0.102	0.115	0.136	0.161	0.147	0.100	
NET (COL/MCD REG)	0.460	0.494	0.500	0.412	0.462	0.667	0.400	0.800	0.600	0.400	
NET (COL/MCD ASC)	0.460	0.473	0.478	0.474	0.473	0.475	0.474	0.479	0.481	0.480	
NET (COL/MCD DEC)	0.480	0.494	0.495	0.491	0.528	0.565	0.550	0.600	0.500	0.400	
REPEAT (COL/MCD REG)	0.407	0.220	0.368	0.412	0.462	0.500	0.500	0.500	0.333	0.000	
REPEAT (COL/MCD ASC)	0.407	0.350	0.353	0.358	0.364	0.365	0.368	0.369	0.369	0.364	
REPEAT (COL/MCD DEC)	0.364	0.328	0.393	0.413	0.414	0.375	0.357	0.250	0.167	0.000	
GAIN (% OF POP REG)	-0.013	-0.003	0.000	-0.027	-0.012	0.029	-0.032	0.125	0.059	-0.043	
GAIN (% OF POP ASC)	-0.013	-0.010	-0.008	-0.010	-0.010	-0.009	-0.009	-0.007	-0.007	-0.007	
GAIN (% OF POP DEC)	-0.007	-0.002	-0.002	-0.003	0.009	0.023	0.021	0.047	0.000	-0.043	
TRIAL (% OF POP REG)	0.076	0.105	0.114	0.063	0.070	0.059	0.065	0.167	0.176	0.087	
TRIAL (% OF POP ASC)	0.076	0.086	0.090	0.088	0.087	0.086	0.086	0.087	0.088	0.088	
TRIAL (% OF POP DEC)	0.088	0.098	0.093	0.080	0.088	0.101	0.116	0.141	0.125	0.087	
NET (% OF POP REG)	0.138	0.135	0.181	0.126	0.140	0.088	0.161	0.208	0.235	0.087	
NET (% OF POP ASC)	0.138	0.137	0.144	0.142	0.142	0.141	0.142	0.143	0.143	0.143	
NET (% OF POP DEC)	0.143	0.147	0.155	0.138	0.144	0.147	0.168	0.172	0.150	0.087	
REPEAT (% OF POP REG)	0.061	0.030	0.067	0.063	0.070	0.029	0.097	0.042	0.059	0.000	
REPEAT (% OF POP ASC)	0.061	0.051	0.054	0.054	0.055	0.055	0.056	0.055	0.055	0.055	
REPEAT (% OF POP DEC)	0.055	0.049	0.062	0.058	0.056	0.047	0.053	0.031	0.025	0.000	

BANNER CHARMIN COTTONELLE AVG 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
0 -----> X	7.	5.	6.	12.	41.	61.	12.	1.	0.	0.	0.	145.
X -----> 0	6.	3.	10.	16.	42.	65.	11.	3.	0.	0.	1.	157.
X -----> X	2.	4.	11.	10.	12.	47.	4.	0.	0.	0.	0.	90.
0 -----> 0	59.	34.	78.	117.	246.	521.	81.	15.	5.	0.	0.	1156.
0 <----> 0	6.	4.	6.	5.	21.	54.	3.	0.	0.	0.	0.	99.
TOTAL	80.	50.	111.	160.	362.	748.	111.	19.	5.	0.	1.	1647.
TRIAL (COL/MCD REG)	0.097	0.116	0.067	0.090	0.133	0.096	0.125	0.063	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.097	0.104	0.088	0.088	0.110	0.103	0.104	0.104	0.104	0.104	0.104	
TRIAL (COL/MCD DEC)	0.104	0.104	0.104	0.106	0.108	0.098	0.111	0.048	0.000	0.000	0.000	
NET (COL/MCD REG)	0.538	0.625	0.375	0.429	0.494	0.484	0.522	0.250	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.538	0.571	0.486	0.462	0.480	0.482	0.485	0.482	0.482	0.482	0.480	
NET (COL/MCD DEC)	0.480	0.478	0.473	0.479	0.485	0.481	0.464	0.200	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.250	0.571	0.524	0.385	0.222	0.420	0.267	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.250	0.400	0.472	0.435	0.336	0.377	0.370	0.366	0.366	0.366	0.364	
REPEAT (COL/MCD DEC)	0.364	0.368	0.362	0.346	0.341	0.389	0.211	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.012	0.040	-0.036	-0.025	-0.003	-0.005	0.009	-0.105	0.000	0.000	-1.000	
GAIN (% OF POP ASC)	0.012	0.023	-0.004	-0.012	-0.008	-0.007	-0.006	-0.007	-0.007	-0.007	-0.007	
GAIN (% OF POP DEC)	-0.007	-0.008	-0.010	-0.008	-0.006	-0.007	-0.015	-0.120	-0.167	-1.000	-1.000	
TRIAL (% OF POP REG)	0.087	0.100	0.054	0.075	0.113	0.082	0.108	0.053	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.087	0.092	0.075	0.075	0.093	0.087	0.089	0.088	0.088	0.088	0.088	
TRIAL (% OF POP DEC)	0.088	0.088	0.088	0.090	0.092	0.084	0.096	0.040	0.000	0.000	0.000	
NET (% OF POP REG)	0.112	0.180	0.153	0.137	0.146	0.144	0.144	0.053	0.000	0.000	0.000	
NET (% OF POP ASC)	0.112	0.138	0.145	0.142	0.144	0.144	0.144	0.143	0.143	0.143	0.143	
NET (% OF POP DEC)	0.143	0.144	0.143	0.142	0.143	0.141	0.125	0.040	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.025	0.080	0.099	0.063	0.033	0.063	0.036	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.025	0.046	0.071	0.067	0.051	0.057	0.055	0.055	0.055	0.055	0.055	
REPEAT (% OF POP DEC)	0.055	0.056	0.055	0.052	0.051	0.058	0.029	0.000	0.000	0.000	0.000	

BANNER CHARMIN COTTONELLE AVG 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
0 -----> X	1.	0.	5.	10.	17.	84.	19.	7.	2.	0.	0.	145.
X -----> 0	0.	0.	6.	8.	25.	93.	18.	2.	4.	0.	1.	157.
X -----> X	1.	0.	2.	10.	16.	53.	8.	0.	0.	0.	0.	90.
0 -----> 0	4.	5.	36.	118.	152.	671.	126.	32.	11.	0.	1.	1156.
0 <----> 0	1.	1.	3.	7.	9.	71.	4.	3.	0.	0.	0.	99.
TOTAL	7.	6.	52.	153.	219.	972.	175.	44.	17.	0.	2.	1647.
TRIAL (COL/MCD REG)	0.167	0.000	0.114	0.074	0.096	0.102	0.128	0.167	0.154	0.000	0.000	
TRIAL (CCL/MCD ASC)	0.167	0.083	0.107	0.084	0.089	0.098	0.101	0.103	0.104	0.104	0.104	
TRIAL (CCL/MCD DEC)	0.104	0.103	0.104	0.103	0.107	0.109	0.137	0.161	0.143	0.000	0.000	
T STATISTICS	0.000	0.000	-0.090	0.966	1.039	1.676	1.420	0.000	0.000	0.000		
NET (COL/MCD REG)	1.000	0.000	0.455	0.556	0.405	0.475	0.514	0.778	0.333	0.000	0.000	
NET (COL/MCD ASC)	1.000	1.000	0.500	0.533	0.458	0.470	0.476	0.485	0.482	0.482	0.480	
NET (COL/MCD DEC)	0.480	0.478	0.478	0.479	0.474	0.487	0.528	0.563	0.286	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	0.000	0.250	0.556	0.390	0.363	0.308	0.000	0.000	0.000	0.000	
REPEAT (CCL/MCD ASC)	1.000	1.000	0.333	0.481	0.426	0.383	0.375	0.372	0.366	0.366	0.364	
REPEAT (COL/MCD DEC)	0.364	0.362	0.362	0.366	0.350	0.341	0.242	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	-1.172	-1.242	-1.566	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.143	0.000	-0.019	0.013	-0.037	-0.009	0.006	0.114	-0.118	0.000	-0.500	
GAIN (% OF POP ASC)	0.143	0.077	0.000	0.009	-0.014	-0.011	-0.009	-0.006	-0.007	-0.007	-0.007	
GAIN (% OF POP DEC)	-0.007	-0.008	-0.008	-0.008	-0.010	-0.005	0.013	0.032	-0.158	-0.500	-0.500	
TRIAL (% OF POP REG)	0.143	0.000	0.096	0.065	0.078	0.086	0.109	0.159	0.118	0.000	0.000	
TRIAL (% OF POP ASC)	0.143	0.077	0.092	0.073	0.076	0.083	0.086	0.088	0.088	0.088	0.088	
TRIAL (% OF POP DEC)	0.088	0.088	0.088	0.088	0.090	0.093	0.118	0.143	0.105	0.000	0.000	
T STATISTICS	0.000	0.000	-0.124	0.819	1.078	1.743	1.566	0.000	0.000	0.000		
NET (% OF POP REG)	0.286	0.000	0.135	0.131	0.151	0.141	0.154	0.159	0.118	0.000	0.000	
NET (% OF POP ASC)	0.286	0.154	0.138	0.133	0.142	0.141	0.143	0.143	0.143	0.143	0.143	
NET (% OF POP DEC)	0.143	0.142	0.143	0.143	0.144	0.143	0.151	0.143	0.105	0.000	0.000	
T STATISTICS	0.000	0.000	0.099	0.438	0.056	0.409	0.004	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.143	0.000	0.038	0.065	0.073	0.055	0.046	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.143	0.077	0.046	0.060	0.066	0.058	0.057	0.055	0.055	0.055	0.055	
REPEAT (% OF POP DEC)	0.055	0.054	0.054	0.055	0.054	0.050	0.034	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.307	-0.348	-1.257	-1.543	-1.946	0.000	0.000	0.000		

BANNER CHARMIN COTTONELLE AVG 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
U -----> X	93.	2.	7.	16.	1.	14.	3.	0.	0.	9.	145.
X -----> 0	111.	4.	7.	10.	3.	8.	2.	2.	1.	9.	157.
X -----> X	69.	1.	8.	3.	1.	4.	1.	0.	0.	3.	90.
U -----> 0	816.	24.	68.	60.	25.	63.	23.	7.	1.	69.	1156.
0 <----> 0	75.	2.	6.	7.	1.	5.	2.	0.	0.	1.	99.
TOTAL	1164.	33.	96.	96.	31.	94.	31.	9.	2.	91.	1647.
TRIAL (COL/MCD REG)	0.095	0.071	0.086	0.193	0.037	0.171	0.107	0.000	0.000	0.114	
TRIAL (COL/MCD ASC)	0.095	0.094	0.093	0.100	0.099	0.104	0.104	0.103	0.103	0.104	
TRIAL (COL/MCD DEC)	0.104	0.125	0.129	0.140	0.121	0.132	0.104	0.103	0.112	0.114	
T STATISTICS	1.711	1.923	2.375	0.909	1.412	0.029	-0.004	0.270	0.311		
NET (COL/MCD REG)	0.456	0.333	0.500	0.615	0.250	0.636	0.600	0.000	0.000	0.500	
NET (COL/MCD ASC)	0.456	0.452	0.455	0.472	0.469	0.482	0.484	0.481	0.479	0.480	
NET (COL/MCD DEC)	0.480	0.531	0.543	0.551	0.519	0.542	0.462	0.429	0.474	0.500	
REPEAT (COL/MCD REG)	0.383	0.200	0.533	0.231	0.250	0.333	0.333	0.000	0.000	0.250	
REPEAT (COL/MCD ASC)	0.383	0.378	0.390	0.380	0.378	0.376	0.375	0.372	0.370	0.364	
REPEAT (COL/MCD DEC)	0.364	0.313	0.323	0.255	0.265	0.267	0.222	0.200	0.231	0.250	
T STATISTICS	-1.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.015	-0.061	0.000	0.063	-0.065	0.064	0.032	-0.222	-0.500	0.000	
GAIN (% OF POP ASC)	-0.015	-0.017	-0.015	-0.010	-0.011	-0.007	-0.006	-0.007	-0.008	-0.007	
GAIN (% OF POP DEC)	-0.007	0.012	0.018	0.023	0.008	0.018	-0.015	-0.029	-0.011	0.000	
TRIAL (% OF POP REG)	0.080	0.061	0.073	0.167	0.032	0.149	0.097	0.000	0.000	0.099	
TRIAL (% OF POP ASC)	0.080	0.079	0.079	0.085	0.084	0.088	0.088	0.088	0.087	0.088	
TRIAL (% OF POP DEC)	0.088	0.108	0.111	0.121	0.105	0.115	0.090	0.088	0.097	0.099	
T STATISTICS	1.810	2.026	2.505	1.025	1.517	0.093	0.007	0.306	0.376		
NET (% OF POP REG)	0.139	0.091	0.156	0.198	0.065	0.191	0.129	0.000	0.000	0.132	
NET (% OF POP ASC)	0.139	0.138	0.139	0.143	0.142	0.145	0.144	0.144	0.143	0.143	
NET (% OF POP DEC)	0.143	0.151	0.156	0.155	0.140	0.150	0.120	0.118	0.129	0.132	
T STATISTICS	0.632	0.916	0.770	-0.157	0.329	-0.770	-0.746	-0.388	-0.303		
REPEAT (% OF POP REG)	0.059	0.030	0.083	0.031	0.032	0.043	0.032	0.000	0.000	0.033	
REPEAT (% OF POP ASC)	0.059	0.058	0.060	0.058	0.058	0.057	0.056	0.056	0.056	0.055	
REPEAT (% OF POP DEC)	0.055	0.043	0.044	0.034	0.035	0.035	0.030	0.029	0.032	0.033	
T STATISTICS	-1.284	-1.117	-1.938	-1.521	-1.385	-1.300	-1.158	-0.978	-0.936		

BANNER TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS

SHARE OF TRANSACTIONS = 0.122
SHARE OF EXPOSURES = 0.329

SWITCHING TOWARD AND COUPON USAGE = 20
SWITCHING AWAY AND COUPON USAGE = 18
LOYAY TO TEST AND COUPON USAGE = 14
OTHER SWITCHING AND COUPON USAGE = 59
LOYAL TO OTHER AND COUPON USAGE = 10

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	18.	12.	8.	9.	6.	1.	3.	0.	0.	5.	62.
X -----> O	13.	12.	3.	7.	5.	1.	1.	3.	2.	4.	51.
X -----> X	9.	4.	3.	1.	2.	1.	2.	2.	2.	0.	26.
O -----> O	198.	107.	58.	41.	31.	21.	7.	6.	3.	16.	488.
O <----> O	18.	8.	5.	7.	0.	0.	1.	2.	0.	2.	43.
TOTAL	256.	143.	77.	65.	44.	24.	14.	13.	7.	27.	670.
TRIAL (COL/MCD REG)	0.077	0.094	0.113	0.158	0.162	0.045	0.273	0.000	0.000	0.217	
TRIAL (COL/MCD ASC)	0.077	0.083	0.088	0.096	0.101	0.099	0.102	0.101	0.100	0.105	
TRIAL (COL/MCD DEC)	0.105	0.123	0.138	0.149	0.144	0.134	0.178	0.147	0.192	0.217	
NET (COL/MCD REG)	0.581	0.500	0.727	0.563	0.545	0.500	0.750	0.000	0.000	0.556	
NET (COL/MCD ASC)	0.581	0.545	0.576	0.573	0.570	0.568	0.576	0.559	0.548	0.549	
NET (COL/MCD DEC)	0.549	0.537	0.552	0.511	0.484	0.450	0.444	0.357	0.455	0.556	
REPEAT (COL/MCD REG)	0.409	0.250	0.500	0.125	0.286	0.500	0.667	0.400	0.500	0.000	
REPEAT (COL/MCD ASC)	0.409	0.342	0.364	0.327	0.322	0.328	0.344	0.348	0.356	0.338	
REPEAT (COL/MCD DEC)	0.338	0.309	0.333	0.303	0.360	0.389	0.375	0.308	0.250	0.000	
GAIN (% OF POP REG)	0.020	0.000	0.065	0.031	0.023	0.000	0.143	-0.231	-0.286	0.037	
GAIN (% OF POP ASC)	0.020	0.013	0.021	0.022	0.022	0.021	0.024	0.019	0.016	0.016	
GAIN (% OF POP DEC)	0.016	0.014	0.022	0.005	-0.008	-0.024	-0.033	-0.085	-0.029	0.037	
TRIAL (% OF POP REG)	0.070	0.084	0.104	0.138	0.136	0.042	0.214	0.000	0.000	0.185	
TRIAL (% OF POP ASC)	0.070	0.075	0.080	0.087	0.091	0.089	0.091	0.090	0.089	0.093	
TRIAL (% OF POP DEC)	0.093	0.106	0.118	0.124	0.116	0.106	0.131	0.106	0.147	0.185	
NET (% OF POP REG)	0.105	0.112	0.143	0.154	0.182	0.083	0.357	0.154	0.286	0.185	
NET (% OF POP ASC)	0.105	0.108	0.113	0.118	0.123	0.122	0.127	0.127	0.129	0.131	
NET (% OF POP DEC)	0.131	0.147	0.166	0.175	0.186	0.188	0.230	0.191	0.206	0.185	
REPEAT (% OF POP REG)	0.035	0.028	0.039	0.015	0.045	0.042	0.143	0.154	0.286	0.000	
REPEAT (% OF POP ASC)	0.035	0.033	0.034	0.031	0.032	0.033	0.035	0.038	0.040	0.039	
REPEAT (% OF POP DEC)	0.039	0.041	0.048	0.052	0.070	0.082	0.098	0.085	0.059	0.000	

BANNER TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS

NUMBER OF BRAND EXPOSURES

	C	1	2	3	4	5	6	7	8	9+	
C -----> X	31.	18.	8.	4.	0.	0.	1.	0.	0.	0.	62.
X -----> O	24.	14.	7.	3.	0.	1.	1.	0.	1.	0.	51.
X -----> X	16.	7.	3.	0.	0.	0.	0.	0.	0.	0.	26.
O -----> O	332.	95.	34.	18.	6.	2.	1.	0.	0.	0.	488.
O <----> O	28.	10.	3.	2.	0.	0.	0.	0.	0.	0.	43.
TOTAL	431.	144.	55.	27.	6.	3.	3.	0.	1.	0.	670.
TRIAL (COL/MCD REG)	0.079	0.146	0.178	0.167	0.000	0.000	0.500	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.079	0.095	0.102	0.105	0.104	0.103	0.105	0.105	0.105	0.105	
TRIAL (COL/MCD DEC)	0.105	0.153	0.165	0.147	0.100	0.250	0.500	0.000	0.000	0.000	
T STATISTICS	2.798	1.872	0.834	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.564	0.563	0.533	0.571	0.000	0.000	0.500	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.564	0.563	0.559	0.560	0.560	0.555	0.554	0.554	0.549	0.549	
NET (COL/MCD DEC)	0.549	0.534	0.500	0.455	0.250	0.250	0.333	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.400	0.333	0.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.400	0.377	0.366	0.351	0.351	0.347	0.342	0.342	0.338	0.338	
REPEAT (COL/MCD DEC)	0.338	0.270	0.188	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.203	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.016	0.028	0.018	0.037	0.000	-0.333	0.000	0.000	-1.000	0.000	
GAIN (% OF POP ASC)	0.016	0.019	0.019	0.020	0.020	0.018	0.018	0.018	0.016	0.016	
GAIN (% OF POP DEC)	0.016	0.017	0.000	-0.025	-0.154	-0.286	-0.250	-1.000	-1.000	0.000	
TRIAL (% OF POP REG)	0.072	0.125	0.145	0.148	0.000	0.000	0.333	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.072	0.085	0.090	0.093	0.092	0.092	0.093	0.093	0.093	0.093	
TRIAL (% OF POP DEC)	0.093	0.130	0.137	0.125	0.077	0.143	0.250	0.000	0.000	0.000	
T STATISTICS	2.472	1.609	0.731	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.109	0.174	0.200	0.148	0.000	0.000	0.333	0.000	0.000	0.000	
NET (% OF POP ASC)	0.109	0.125	0.132	0.132	0.131	0.131	0.132	0.132	0.131	0.131	
NET (% OF POP DEC)	0.131	0.172	0.168	0.125	0.077	0.143	0.250	0.000	0.000	0.000	
T STATISTICS	2.294	1.155	-0.122	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.037	0.049	0.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.037	0.040	0.041	0.040	0.039	0.039	0.039	0.039	0.039	0.039	
REPEAT (% OF POP DEC)	0.039	0.042	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.303	-0.394	-1.311	0.000	0.000	0.000	0.000	0.000	0.000		

BANNER TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	22.	17.	10.	4.	3.	1.	2.	0.	2.	1.	62.
X -----> O	18.	12.	8.	2.	5.	1.	2.	2.	1.	0.	51.
X -----> X	11.	3.	3.	1.	2.	2.	3.	1.	0.	0.	26.
O -----> O	235.	118.	51.	32.	28.	6.	7.	4.	3.	4.	488.
O <----> O	20.	11.	5.	2.	1.	2.	0.	0.	1.	1.	43.
TOTAL	396.	161.	77.	41.	39.	12.	14.	7.	7.	6.	670.
TRIAL (COL/MCD REG)	0.079	0.116	0.152	0.105	0.094	0.111	0.222	0.000	0.333	0.167	
TRIAL (COL/MCD ASC)	0.079	0.092	0.100	0.101	0.100	0.100	0.102	0.102	0.104	0.105	
TRIAL (COL/MCD DEC)	0.105	0.127	0.135	0.125	0.136	0.176	0.200	0.188	0.250	0.167	
NET (COL/MCD REG)	0.550	0.586	0.556	0.667	0.375	0.500	0.500	0.000	0.667	1.000	
NET (COL/MCD ASC)	0.550	0.565	0.563	0.570	0.554	0.553	0.551	0.541	0.545	0.549	
NET (COL/MCD DEC)	0.549	0.548	0.523	0.500	0.450	0.500	0.500	0.500	0.750	1.000	
REPEAT (COL/MCD REG)	0.379	0.200	0.273	0.333	0.286	0.667	0.600	0.333	0.000	0.000	
REPEAT (COL/MCD ASC)	0.379	0.318	0.309	0.310	0.308	0.324	0.342	0.342	0.338	0.338	
REPEAT (COL/MCD DEC)	0.338	0.313	0.364	0.409	0.421	0.500	0.444	0.250	0.000	0.000	
GAIN (% OF POP REG)	0.013	0.031	0.026	0.049	-0.051	0.000	0.000	-0.286	0.143	0.167	
GAIN (% OF POP ASC)	0.013	0.019	0.020	0.022	0.018	0.017	0.017	0.014	0.015	0.016	
GAIN (% OF POP DEC)	0.016	0.019	0.010	0.000	-0.024	0.000	0.000	0.000	0.154	0.167	
TRIAL (% OF POP REG)	0.072	0.106	0.130	0.098	0.077	0.083	0.143	0.000	0.286	0.167	
TRIAL (% OF POP ASC)	0.072	0.084	0.090	0.091	0.090	0.090	0.091	0.090	0.092	0.093	
TRIAL (% OF POP DEC)	0.093	0.110	0.113	0.103	0.106	0.130	0.147	0.150	0.231	0.167	
NET (% OF POP REG)	0.108	0.124	0.169	0.122	0.128	0.250	0.357	0.143	0.286	0.167	
NET (% OF POP ASC)	0.108	0.113	0.121	0.121	0.122	0.124	0.129	0.129	0.131	0.131	
NET (% OF POP DEC)	0.131	0.151	0.172	0.175	0.200	0.261	0.265	0.200	0.231	0.167	
REPEAT (% OF POP REG)	0.036	0.019	0.039	0.024	0.051	0.167	0.214	0.143	0.000	0.000	
REPEAT (% OF POP ASC)	0.036	0.030	0.031	0.031	0.032	0.035	0.038	0.040	0.039	0.039	
REPEAT (% OF POP DEC)	0.039	0.041	0.059	0.071	0.094	0.130	0.118	0.050	0.000	0.000	

BANNER TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	2.	2.	5.	5.	12.	29.	7.	0.	0.	0.	0.	62.
X -----> O	3.	1.	4.	4.	13.	16.	7.	2.	0.	0.	1.	51.
X -----> X	3.	4.	0.	4.	3.	10.	2.	0.	0.	0.	0.	26.
O -----> O	15.	12.	25.	48.	102.	229.	42.	10.	5.	0.	0.	488.
O <----> O	2.	1.	3.	2.	10.	21.	4.	0.	0.	0.	0.	43.
TOTAL	25.	20.	37.	63.	140.	305.	62.	12.	5.	0.	1.	670.
TRIAL (COL/MCD REG)	0.105	0.133	0.152	0.091	0.097	0.104	0.132	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.105	0.118	0.134	0.115	0.106	0.105	0.107	0.105	0.105	0.105	0.105	
TRIAL (COL/MCD DEC)	0.105	0.105	0.104	0.101	0.102	0.104	0.103	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.400	0.667	0.556	0.556	0.480	0.644	0.500	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.400	0.500	0.529	0.538	0.510	0.573	0.564	0.554	0.554	0.554	0.549	
NET (COL/MCD DEC)	0.549	0.556	0.552	0.552	0.552	0.581	0.412	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.500	0.800	0.000	0.500	0.188	0.385	0.222	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.500	0.636	0.467	0.478	0.359	0.369	0.351	0.342	0.342	0.342	0.338	
REPEAT (COL/MCD DEC)	0.338	0.324	0.288	0.306	0.278	0.316	0.167	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	-0.040	0.350	0.027	0.016	-0.007	0.043	0.000	-0.167	0.000	0.000	-1.000	
GAIN (% OF POP ASC)	-0.040	0.000	0.012	0.014	0.004	0.024	0.021	0.018	0.018	0.018	0.016	
GAIN (% OF POP DEC)	0.016	0.019	0.018	0.017	0.017	0.026	-0.037	-0.167	-0.167	-1.000	-1.000	
TRIAL (% OF POP REG)	0.080	0.100	0.135	0.079	0.086	0.095	0.113	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.080	0.089	0.110	0.097	0.091	0.093	0.095	0.093	0.093	0.093	0.093	
TRIAL (% OF POP DEC)	0.093	0.093	0.093	0.090	0.091	0.094	0.087	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.200	0.300	0.135	0.143	0.107	0.128	0.145	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.200	0.244	0.195	0.172	0.140	0.134	0.135	0.133	0.132	0.132	0.131	
NET (% OF POP DEC)	0.131	0.129	0.123	0.122	0.120	0.125	0.112	0.000	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.120	0.200	0.000	0.063	0.021	0.033	0.032	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.120	0.156	0.085	0.076	0.049	0.041	0.040	0.039	0.039	0.039	0.039	
REPEAT (% OF POP DEC)	0.039	0.036	0.030	0.032	0.029	0.031	0.025	0.000	0.000	0.000	0.000	

BANNER TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	0.	0.	6.	7.	29.	14.	5.	1.	0.	0.	62.
X -----> O	0.	0.	2.	0.	11.	23.	9.	2.	3.	0.	1.	51.
X -----> X	1.	1.	0.	5.	5.	12.	2.	0.	0.	0.	0.	26.
O -----> O	0.	2.	11.	41.	55.	289.	59.	21.	9.	0.	1.	488.
O <----> O	0.	0.	2.	3.	0.	30.	6.	2.	0.	0.	0.	43.
TOTAL	1.	3.	15.	55.	78.	383.	90.	30.	13.	0.	2.	670.
TRIAL (COL/MCD REG)	0.000	0.000	0.000	0.120	0.113	0.083	0.177	0.179	0.100	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.000	0.000	0.092	0.102	0.088	0.101	0.105	0.105	0.105	0.105	
TRIAL (COL/MCD DEC)	0.105	0.105	0.105	0.107	0.106	0.105	0.169	0.154	0.091	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.342	0.091	2.568	1.029	0.000	0.000	0.000		
NET (COL/MCD REG)	0.000	0.000	0.000	1.000	0.389	0.558	0.609	0.714	0.250	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.000	0.000	0.750	0.500	0.538	0.554	0.565	0.554	0.554	0.549	
NET (COL/MCD DEC)	0.549	0.549	0.549	0.559	0.533	0.563	0.571	0.500	0.200	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	1.000	0.000	1.000	0.313	0.343	0.182	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	1.000	1.000	0.500	0.778	0.480	0.400	0.366	0.356	0.342	0.342	0.338	
REPEAT (COL/MCD DEC)	0.338	0.329	0.320	0.329	0.279	0.269	0.118	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	-1.867	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	-0.133	0.109	-0.051	0.016	0.056	0.100	-0.154	0.000	-0.500	
GAIN (% OF POP ASC)	0.000	0.000	-0.105	0.054	0.000	0.011	0.018	0.021	0.018	0.018	0.016	
GAIN (% OF POP DEC)	0.016	0.016	0.017	0.020	0.012	0.021	0.037	0.000	-0.200	-0.500	-0.500	
TRIAL (% OF POP REG)	0.000	0.000	0.000	0.109	0.090	0.076	0.156	0.167	0.077	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.000	0.081	0.086	0.079	0.090	0.093	0.093	0.093	0.093	
TRIAL (% OF POP DEC)	0.093	0.093	0.093	0.095	0.094	0.095	0.148	0.133	0.067	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.361	0.339	2.495	0.978	0.000	0.000	0.000		
NET (% OF POP REG)	1.000	0.333	0.000	0.200	0.154	0.107	0.178	0.167	0.077	0.000	0.000	
NET (% OF POP ASC)	1.000	0.500	0.105	0.176	0.164	0.123	0.131	0.133	0.132	0.132	0.131	
NET (% OF POP DEC)	0.131	0.130	0.129	0.132	0.126	0.122	0.163	0.133	0.067	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	-1.197	-1.375	1.217	0.041	0.000	0.000	0.000		
REPEAT (% OF POP REG)	1.000	0.333	0.000	0.091	0.064	0.031	0.022	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	1.000	0.500	0.105	0.095	0.079	0.045	0.042	0.040	0.039	0.039	0.039	
REPEAT (% OF POP DEC)	0.039	0.037	0.036	0.037	0.032	0.027	0.015	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	-2.635	-2.914	-1.615	-1.396	0.000	0.000	0.000		

BANNER TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
0 -----> X	31.	2.	2.	8.	1.	11.	3.	0.	0.	4.	62.
X -----> 0	24.	3.	3.	6.	2.	4.	2.	1.	1.	5.	51.
X -----> X	16.	2.	3.	2.	0.	1.	0.	0.	0.	2.	26.
0 -----> 0	332.	7.	28.	22.	11.	32.	12.	6.	1.	37.	488.
0 <----> 0	29.	1.	2.	3.	1.	3.	2.	0.	0.	2.	43.
TOTAL	432.	15.	38.	41.	15.	51.	19.	7.	2.	50.	670.
TRIAL (COL/MCD REG)	0.079	0.200	0.063	0.242	0.077	0.239	0.176	0.000	0.000	0.093	
TRIAL (COL/MCD ASC)	0.079	0.082	0.081	0.092	0.092	0.105	0.107	0.106	0.105	0.105	
TRIAL (COL/MCD DEC)	0.105	0.154	0.152	0.170	0.151	0.159	0.104	0.080	0.091	0.093	
T STATISTICS	2.831	2.594	3.144	1.912	2.114	-0.002	-0.593	-0.307	-0.257		
NET (COL/MCD REG)	0.564	0.400	0.400	0.571	0.333	0.733	0.600	0.000	0.000	0.444	
NET (COL/MCD ASC)	0.564	0.550	0.538	0.544	0.537	0.567	0.569	0.563	0.558	0.549	
NET (COL/MCD DEC)	0.549	0.534	0.547	0.563	0.559	0.581	0.438	0.364	0.400	0.444	
REPEAT (COL/MCD REG)	0.400	0.400	0.500	0.250	0.000	0.200	0.000	0.000	0.000	0.286	
REPEAT (COL/MCD ASC)	0.400	0.400	0.412	0.390	0.377	0.364	0.353	0.348	0.343	0.338	
REPEAT (COL/MCD DEC)	0.338	0.270	0.250	0.192	0.167	0.188	0.182	0.222	0.250	0.286	
T STATISTICS	-1.203	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.016	-0.067	-0.026	0.049	-0.067	0.137	0.053	-0.143	-0.500	-0.020	
GAIN (% OF POP ASC)	0.016	0.013	0.010	0.013	0.011	0.022	0.023	0.021	0.019	0.016	
GAIN (% OF POP DEC)	0.016	0.017	0.022	0.032	0.028	0.039	-0.026	-0.051	-0.038	-0.020	
TRIAL (% OF POP REG)	0.072	0.133	0.053	0.195	0.067	0.216	0.158	0.000	0.000	0.080	
TRIAL (% OF POP ASC)	0.072	0.074	0.072	0.082	0.081	0.093	0.095	0.094	0.094	0.093	
TRIAL (% OF POP DEC)	0.093	0.130	0.130	0.146	0.132	0.140	0.090	0.068	0.077	0.080	
T STATISTICS	2.500	2.366	2.946	1.842	2.050	-0.091	-0.687	-0.405	-0.318		
NET (% OF POP REG)	0.109	0.267	0.132	0.244	0.067	0.235	0.158	0.000	0.000	0.120	
NET (% OF POP ASC)	0.109	0.114	0.115	0.125	0.124	0.133	0.134	0.133	0.132	0.131	
NET (% OF POP DEC)	0.131	0.172	0.166	0.173	0.153	0.163	0.115	0.102	0.115	0.120	
T STATISTICS	2.328	1.871	1.970	0.859	1.177	-0.444	-0.706	-0.355	-0.247		
REPEAT (% OF POP REG)	0.037	0.133	0.079	0.049	0.000	0.020	0.000	0.000	0.000	0.040	
REPEAT (% OF POP ASC)	0.037	0.040	0.043	0.044	0.043	0.041	0.039	0.039	0.039	0.039	
REPEAT (% OF POP DEC)	0.039	0.042	0.036	0.027	0.021	0.023	0.026	0.034	0.038	0.040	
T STATISTICS	0.319	-0.278	-0.975	-1.260	-1.018	-0.640	-0.204	-0.013	0.045		

BANNER TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

SHARE OF TRANSACTIONS = 0.122
SHARE OF EXPOSURES = 0.328

SWITCHING TOWARD AND COUPON USAGE = 20
SWITCHING AWAY AND COUPON USAGE = 18
LOYAL TO TEST AND COUPON USAGE = 14
OTHER SWITCHING AND COUPON USAGE = 59
LOYAL TO OTHER AND COUPON USAGE = 10

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	5.	3.	2.	5.	2.	0.	1.	0.	0.	2.	20.
X -----> O	2.	5.	2.	4.	2.	0.	1.	1.	1.	0.	18.
X -----> X	3.	2.	2.	1.	0.	1.	2.	2.	1.	0.	14.
O -----> O	25.	14.	6.	3.	9.	0.	1.	0.	0.	1.	59.
O <----> O	2.	4.	3.	1.	0.	0.	0.	0.	0.	0.	10.
TOTAL	37.	28.	15.	14.	13.	1.	5.	3.	2.	3.	121.
TRIAL (COL/MCD REG)	0.156	0.143	0.182	0.556	0.182	0.000	0.500	0.000	0.000	0.667	
TRIAL (COL/MCD ASC)	0.156	0.151	0.156	0.205	0.202	0.202	0.209	0.209	0.209	0.225	
TRIAL (COL/MCD DEC)	0.225	0.263	0.333	0.400	0.313	0.600	0.600	0.667	0.667	0.667	
NET (COL/MCD REG)	0.714	0.375	0.500	0.556	0.500	0.000	0.500	0.000	0.000	1.000	
NET (COL/MCD ASC)	0.714	0.533	0.526	0.536	0.531	0.531	0.529	0.514	0.500	0.526	
NET (COL/MCD DEC)	0.526	0.484	0.522	0.526	0.500	0.500	0.500	0.500	0.667	1.000	
REPEAT (COL/MCD REG)	0.600	0.286	0.500	0.200	0.000	1.000	0.667	0.667	0.500	0.000	
REPEAT (COL/MCD ASC)	0.600	0.417	0.438	0.381	0.348	0.375	0.407	0.433	0.438	0.438	
REPEAT (COL/MCD DEC)	0.438	0.407	0.450	0.438	0.545	0.667	0.625	0.600	0.500	0.000	
GAIN (% OF POP REG)	0.081	-0.071	0.000	0.071	0.000	0.000	0.000	-0.333	-0.500	0.667	
GAIN (% OF POP ASC)	0.081	0.015	0.012	0.021	0.019	0.019	0.018	0.009	0.000	0.017	
GAIN (% OF POP DEC)	0.017	-0.012	0.018	0.024	0.000	0.000	0.000	0.000	0.200	0.667	
TRIAL (% OF POP REG)	0.135	0.107	0.133	0.357	0.154	0.000	0.200	0.000	0.000	0.667	
TRIAL (% OF POP ASC)	0.135	0.123	0.125	0.160	0.159	0.157	0.159	0.155	0.153	0.165	
TRIAL (% OF POP DEC)	0.165	0.179	0.214	0.244	0.185	0.214	0.231	0.250	0.400	0.667	
NET (% OF POP REG)	0.216	0.179	0.267	0.429	0.154	1.000	0.600	0.667	0.500	0.667	
NET (% OF POP ASC)	0.216	0.200	0.212	0.245	0.234	0.241	0.257	0.267	0.271	0.281	
NET (% OF POP DEC)	0.281	0.310	0.375	0.415	0.407	0.643	0.615	0.625	0.600	0.667	
REPEAT (% OF POP REG)	0.081	0.071	0.133	0.071	0.000	1.000	0.400	0.667	0.500	0.000	
REPEAT (% OF POP ASC)	0.081	0.077	0.087	0.085	0.075	0.083	0.097	0.112	0.119	0.116	
REPEAT (% OF POP DEC)	0.116	0.131	0.161	0.171	0.222	0.429	0.385	0.375	0.200	0.000	

BANNER TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	11.	5.	2.	2.	0.	0.	0.	0.	0.	0.	20.
X -----> O	8.	6.	3.	1.	0.	0.	0.	0.	0.	0.	18.
X -----> X	8.	4.	2.	0.	0.	0.	0.	0.	0.	0.	14.
O -----> O	41.	9.	5.	4.	0.	0.	0.	0.	0.	0.	59.
O <----> O	8.	2.	0.	0.	0.	0.	0.	0.	0.	0.	10.
TOTAL	76.	26.	12.	7.	0.	0.	0.	0.	0.	0.	121.
TRIAL (COL/MCD REG)	0.183	0.313	0.286	0.333	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.183	0.211	0.217	0.225	0.225	0.225	0.225	0.225	0.225	0.225	
TRIAL (COL/MCD DEC)	0.225	0.310	0.308	0.333	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	1.345	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.579	0.455	0.400	0.667	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.579	0.533	0.514	0.526	0.526	0.526	0.526	0.526	0.526	0.526	
NET (COL/MCD DEC)	0.526	0.474	0.500	0.667	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.500	0.400	0.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.500	0.462	0.452	0.438	0.438	0.438	0.438	0.438	0.438	0.438	
REPEAT (COL/MCD DEC)	0.438	0.375	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.039	-0.038	-0.083	0.143	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.039	0.020	0.009	0.017	0.017	0.017	0.017	0.017	0.017	0.017	
GAIN (% OF POP DEC)	0.017	-0.022	0.000	0.143	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.145	0.192	0.167	0.286	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.145	0.157	0.158	0.165	0.165	0.165	0.165	0.165	0.165	0.165	
TRIAL (% OF POP DEC)	0.165	0.200	0.211	0.286	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.791	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.250	0.346	0.333	0.286	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.250	0.275	0.281	0.281	0.281	0.281	0.281	0.281	0.281	0.281	
NET (% OF POP DEC)	0.281	0.333	0.316	0.286	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.986	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.105	0.154	0.167	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.105	0.118	0.123	0.116	0.116	0.116	0.116	0.116	0.116	0.116	
REPEAT (% OF POP DEC)	0.116	0.133	0.195	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.467	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

BANNER TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	5.	6.	3.	2.	1.	1.	1.	0.	0.	1.	20.
X -----> O	3.	7.	3.	1.	3.	0.	0.	1.	0.	0.	18.
X -----> X	4.	1.	3.	0.	1.	2.	2.	1.	0.	0.	14.
O -----> O	30.	18.	3.	5.	1.	0.	1.	0.	1.	0.	59.
O <----> O	3.	4.	2.	1.	0.	0.	0.	0.	0.	0.	10.
TOTAL	45.	36.	14.	9.	6.	3.	4.	2.	1.	1.	121.
TRIAL (COL/MCD REG)	0.132	0.214	0.375	0.250	0.500	1.000	0.500	0.000	0.000	1.000	
TRIAL (COL/MCD ASC)	0.132	0.167	0.189	0.195	0.202	0.212	0.218	0.218	0.216	0.225	
TRIAL (COL/MCD DEC)	0.225	0.294	0.391	0.400	0.571	0.600	0.500	0.500	0.500	1.000	
NET (COL/MCD REG)	0.625	0.462	0.500	0.667	0.250	1.000	1.000	0.000	0.000	1.000	
NET (COL/MCD ASC)	0.625	0.524	0.519	0.533	0.500	0.514	0.528	0.514	0.514	0.526	
NET (COL/MCD DEC)	0.526	0.500	0.529	0.545	0.500	0.750	0.667	0.500	1.000	1.000	
REPEAT (COL/MCD REG)	0.571	0.125	0.500	0.000	0.250	1.000	1.000	0.500	0.000	0.000	
REPEAT (COL/MCD ASC)	0.571	0.333	0.381	0.364	0.346	0.393	0.433	0.438	0.438	0.438	
REPEAT (COL/MCD DEC)	0.438	0.400	0.529	0.545	0.600	0.833	0.750	0.500	0.000	0.000	
GAIN (% OF POP REG)	0.044	-0.028	0.000	0.111	-0.333	0.333	0.250	-0.500	0.000	1.000	
GAIN (% OF POP ASC)	0.044	0.012	0.011	0.019	0.000	0.009	0.017	0.008	0.008	0.017	
GAIN (% OF POP DEC)	0.017	0.000	0.025	0.038	0.000	0.182	0.125	0.000	0.500	1.000	
TRIAL (% OF POP REG)	0.111	0.167	0.214	0.222	0.167	0.333	0.250	0.000	0.000	1.000	
TRIAL (% OF POP ASC)	0.111	0.136	0.147	0.154	0.155	0.159	0.162	0.160	0.158	0.165	
TRIAL (% OF POP DEC)	0.165	0.197	0.225	0.231	0.235	0.273	0.250	0.250	0.500	1.000	
NET (% OF POP REG)	0.200	0.194	0.429	0.222	0.333	1.000	0.750	0.500	0.000	1.000	
NET (% OF POP ASC)	0.200	0.198	0.232	0.231	0.236	0.257	0.274	0.277	0.275	0.281	
NET (% OF POP DEC)	0.281	0.329	0.450	0.462	0.588	0.727	0.625	0.500	0.500	1.000	
REPEAT (% OF POP REG)	0.089	0.028	0.214	0.000	0.167	0.667	0.500	0.500	0.000	0.000	
REPEAT (% OF POP ASC)	0.089	0.062	0.084	0.077	0.082	0.097	0.111	0.118	0.117	0.116	
REPEAT (% OF POP DEC)	0.116	0.132	0.225	0.231	0.353	0.455	0.375	0.250	0.000	0.000	

BANNER TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
C -----> X	1.	2.	3.	0.	5.	8.	1.	0.	C.	0.	0.	20.
X -----> 0	1.	1.	C.	2.	9.	3.	1.	1.	0.	C.	0.	18.
X -----> X	3.	2.	0.	3.	2.	3.	1.	0.	0.	0.	0.	14.
0 -----> 0	2.	1.	1.	5.	12.	30.	3.	4.	1.	0.	0.	59.
0 <----> 0	0.	0.	1.	2.	3.	3.	1.	0.	0.	0.	0.	10.
TOTAL	7.	6.	5.	12.	31.	47.	7.	5.	1.	0.	0.	121.
TRIAL (COL/MCD REG)	0.333	0.667	0.600	0.000	0.250	0.195	0.200	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.333	0.500	0.545	0.333	0.289	0.241	0.238	0.227	0.225	0.225	0.225	
TRIAL (COL/MCD DEC)	0.225	0.221	0.205	0.179	0.197	0.176	0.100	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.500	0.667	1.000	0.000	0.357	0.727	0.500	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.500	0.600	0.750	0.600	0.458	0.543	0.541	0.526	0.526	0.526	0.526	
NET (CCL/MCD DEC)	0.526	0.528	0.515	0.467	0.500	0.643	0.333	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.750	0.667	0.000	0.600	0.182	0.500	0.500	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.750	0.714	0.714	0.667	0.435	0.448	0.452	0.438	0.438	0.438	0.438	
REPEAT (CCL/MCD DEC)	0.438	0.393	0.360	0.360	0.300	0.444	0.333	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.000	0.167	0.600	-0.167	-0.129	0.106	0.000	-0.200	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.077	0.222	0.067	-0.033	0.028	0.026	0.017	0.017	0.017	0.017	
GAIN (% OF POP DEC)	0.017	0.018	0.009	-0.019	0.000	0.067	-0.077	-0.167	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.143	0.333	0.600	0.000	0.161	0.170	0.143	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.143	0.231	0.333	0.200	0.180	0.176	0.174	0.167	0.165	0.165	0.165	
TRIAL (% OF POP DEC)	0.165	0.167	0.157	0.136	0.154	0.150	0.077	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.571	0.667	0.600	0.250	0.226	0.234	0.286	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.571	0.615	0.611	0.467	0.344	0.296	0.296	0.283	0.281	0.281	0.281	
NET (% OF PCP DEC)	0.281	0.263	0.241	0.223	0.220	0.217	0.154	0.000	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.429	0.333	0.000	0.250	0.065	0.064	0.143	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.429	0.385	0.278	0.267	0.164	0.120	0.122	0.117	0.116	0.116	0.116	
REPEAT (% OF POP DEC)	0.116	0.096	0.083	0.087	0.066	0.067	0.077	0.000	0.000	0.000	0.000	

BANNER TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	0.	0.	3.	3.	9.	3.	2.	0.	0.	0.	20.
X -----> O	0.	0.	1.	0.	6.	7.	2.	2.	0.	0.	0.	18.
X -----> X	1.	1.	0.	3.	4.	4.	1.	0.	0.	0.	0.	14.
O -----> O	0.	0.	1.	2.	9.	33.	6.	6.	2.	0.	0.	59.
O <----> O	0.	0.	0.	1.	0.	7.	2.	0.	0.	0.	0.	10.
TOTAL	1.	1.	2.	9.	22.	60.	14.	10.	2.	0.	0.	121.
TRIAL (COL/MCD REG)	0.000	0.000	0.000	0.500	0.250	0.184	0.273	0.250	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.000	0.000	0.429	0.316	0.221	0.228	0.230	0.225	0.225	0.225	
TRIAL (COL/MCD DEC)	0.225	0.225	0.225	0.227	0.207	0.200	0.238	0.200	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.168	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.000	0.000	0.000	1.000	0.333	0.563	0.600	0.500	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.000	0.000	0.750	0.462	0.517	0.529	0.526	0.526	0.526	0.526	
NET (COL/MCD DEC)	0.526	0.526	0.526	0.541	0.500	0.560	0.556	0.500	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	1.000	0.000	1.000	0.400	0.364	0.333	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	1.000	1.000	0.667	0.833	0.563	0.481	0.467	0.438	0.438	0.438	0.438	
REPEAT (COL/MCD DEC)	0.438	0.419	0.400	0.414	0.346	0.313	0.200	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	-0.500	0.333	-0.136	0.033	0.071	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	-0.250	0.154	-0.029	0.011	0.018	0.017	0.017	0.017	0.017	
GAIN (% OF POP DEC)	0.017	0.017	0.017	0.026	0.000	0.035	0.038	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.000	0.000	0.333	0.136	0.150	0.214	0.200	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.000	0.231	0.171	0.158	0.165	0.168	0.165	0.165	0.165	
TRIAL (% OF POP DEC)	0.165	0.167	0.168	0.171	0.157	0.163	0.192	0.167	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	-0.116	0.419	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	1.000	1.000	0.000	0.667	0.318	0.217	0.286	0.200	0.000	0.000	0.000	
NET (% OF POP ASC)	1.000	1.000	0.500	0.615	0.429	0.295	0.294	0.286	0.281	0.281	0.281	
NET (% OF POP DEC)	0.281	0.275	0.269	0.274	0.241	0.221	0.231	0.167	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	-2.304	-0.643	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	1.000	1.000	0.000	0.333	0.182	0.067	0.071	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	1.000	1.000	0.500	0.385	0.257	0.137	0.128	0.118	0.116	0.116	0.116	
REPEAT (% OF POP DEC)	0.116	0.108	0.101	0.103	0.083	0.058	0.038	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	-3.103	-1.390	0.000	0.000	0.000	0.000		

BANNER TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	11.	1.	1.	3.	0.	3.	1.	0.	0.	0.	20.
X -----> O	8.	1.	1.	4.	1.	1.	1.	0.	0.	1.	18.
X -----> X	8.	2.	1.	2.	0.	0.	0.	0.	0.	1.	14.
O -----> O	41.	0.	5.	0.	0.	5.	1.	2.	0.	5.	59.
O <----> O	8.	0.	0.	0.	0.	1.	0.	0.	0.	1.	10.
TOTAL	76.	4.	8.	9.	1.	10.	3.	2.	0.	8.	121.
TRIAL (COL/MCD REG)	0.183	1.000	0.167	1.000	0.000	0.333	0.500	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.183	0.197	0.194	0.229	0.229	0.241	0.247	0.241	0.241	0.225	
TRIAL (COL/MCD DEC)	0.225	0.310	0.286	0.318	0.211	0.211	0.100	0.000	0.000	0.000	
T STATISTICS	1.345	0.934	1.210	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.579	0.500	0.500	0.429	0.000	0.750	0.500	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.579	0.571	0.565	0.533	0.516	0.543	0.541	0.541	0.541	0.526	
NET (COL/MCD DEC)	0.526	0.474	0.471	0.467	0.500	0.571	0.333	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.500	0.667	0.500	0.333	0.000	0.000	0.000	0.000	0.000	0.500	
REPEAT (COL/MCD ASC)	0.500	0.526	0.524	0.481	0.464	0.448	0.433	0.433	0.433	0.438	
REPEAT (COL/MCD DEC)	0.438	0.375	0.308	0.273	0.200	0.250	0.333	0.500	0.500	0.500	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.039	0.000	0.000	-0.111	-1.000	0.200	0.000	0.000	0.000	-0.125	
GAIN (% OF POP ASC)	0.039	0.037	0.034	0.021	0.010	0.028	0.027	0.027	0.027	0.017	
GAIN (% OF POP DEC)	0.017	-0.022	-0.024	-0.030	0.000	0.043	-0.077	-0.100	-0.125	-0.125	
TRIAL (% OF POP REG)	0.145	0.250	0.125	0.333	0.000	0.300	0.333	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.145	0.150	0.148	0.165	0.163	0.176	0.180	0.177	0.177	0.165	
TRIAL (% OF POP DEC)	0.165	0.200	0.195	0.212	0.167	0.174	0.077	0.000	0.000	0.000	
T STATISTICS	0.791	0.632	0.849	0.020	0.124	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.250	0.750	0.250	0.556	0.000	0.300	0.333	0.000	0.000	0.125	
NET (% OF POP ASC)	0.250	0.275	0.273	0.299	0.296	0.296	0.297	0.292	0.292	0.281	
NET (% OF POP DEC)	0.281	0.333	0.293	0.303	0.208	0.217	0.154	0.100	0.125	0.125	
T STATISTICS	0.986	0.205	0.330	-0.884	-0.754	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.105	0.500	0.125	0.222	0.000	0.000	0.000	0.000	0.000	0.125	
REPEAT (% OF POP ASC)	0.105	0.125	0.125	0.134	0.133	0.120	0.117	0.115	0.115	0.116	
REPEAT (% OF POP DEC)	0.116	0.133	0.098	0.091	0.042	0.043	0.077	0.100	0.125	0.125	
T STATISTICS	0.467	-0.447	-0.522	-1.266	-1.203	0.000	0.000	0.000	0.000		

BANNER TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

SHARE OF TRANSACTIONS = 0.122
SHARE OF EXPOSURES = 0.329

SWITCHING TOWARD AND COUPON USAGE = 0
SWITCHING AWAY AND COUPON USAGE = 0
LOYAL TO TEST AND COUPON USAGE = 0
OTHER SWITCHING AND COUPON USAGE = 0
LOYAL TO OTHER AND COUPON USAGE = 0

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	13.	9.	6.	4.	4.	1.	2.	0.	0.	3.	42.
X -----> O	11.	7.	1.	3.	3.	1.	0.	2.	1.	4.	33.
X -----> X	6.	2.	1.	0.	2.	0.	0.	0.	1.	0.	12.
O -----> O	173.	93.	52.	38.	22.	21.	6.	6.	3.	15.	429.
O <----> O	16.	4.	2.	6.	0.	0.	1.	2.	0.	2.	33.
TOTAL	219.	115.	62.	51.	31.	23.	9.	10.	5.	24.	549.
TRIAL (COL/MCD REG)	0.064	0.085	0.100	0.083	0.154	0.045	0.222	0.000	0.000	0.150	
TRIAL (COL/MCD ASC)	0.064	0.071	0.076	0.077	0.081	0.080	0.082	0.081	0.081	0.083	
TRIAL (COL/MCD DEC)	0.083	0.096	0.102	0.103	0.114	0.097	0.125	0.097	0.130	0.150	
NET (COL/MCD REG)	0.542	0.563	0.857	0.571	0.571	0.500	1.000	0.000	0.000	0.429	
NET (COL/MCD ASC)	0.542	0.550	0.596	0.593	0.590	0.587	0.600	0.582	0.574	0.560	
NET (COL/MCD DEC)	0.560	0.569	0.571	0.500	0.476	0.429	0.417	0.300	0.375	0.429	
REPEAT (COL/MCD REG)	0.353	0.222	0.500	0.000	0.400	0.000	0.000	0.000	0.500	0.000	
REPEAT (COL/MCD ASC)	0.353	0.308	0.321	0.290	0.306	0.297	0.297	0.282	0.293	0.267	
REPEAT (COL/MCD DEC)	0.267	0.214	0.211	0.176	0.214	0.111	0.125	0.125	0.167	0.000	
GAIN (% OF POP REG)	0.009	0.017	0.081	0.020	0.032	0.000	0.222	-0.200	-0.200	-0.042	
GAIN (% OF POP ASC)	0.009	0.012	0.023	0.022	0.023	0.022	0.025	0.021	0.019	0.016	
GAIN (% OF POP DEC)	0.016	0.021	0.023	0.000	-0.010	-0.028	-0.042	-0.103	-0.069	-0.042	
TRIAL (% OF POP REG)	0.059	0.078	0.097	0.078	0.129	0.043	0.222	0.000	0.000	0.125	
TRIAL (% OF POP ASC)	0.059	0.066	0.071	0.072	0.075	0.074	0.076	0.075	0.074	0.077	
TRIAL (% OF POP DEC)	0.077	0.088	0.093	0.092	0.098	0.085	0.104	0.077	0.103	0.125	
NET (% OF POP REG)	0.087	0.096	0.113	0.078	0.194	0.043	0.222	0.000	0.200	0.125	
NET (% OF POP ASC)	0.087	0.090	0.093	0.092	0.098	0.096	0.098	0.096	0.097	0.098	
NET (% OF POP DEC)	0.098	0.106	0.112	0.111	0.127	0.099	0.125	0.103	0.138	0.125	
REPEAT (% OF POP REG)	0.027	0.017	0.016	0.000	0.065	0.000	0.000	0.000	0.200	0.000	
REPEAT (% OF POP ASC)	0.027	0.024	0.023	0.020	0.023	0.022	0.022	0.021	0.023	0.022	
REPEAT (% OF POP DEC)	0.022	0.018	0.019	0.020	0.029	0.014	0.021	0.026	0.034	0.000	

DANNER TISSUE 7-DAY WINDOW   60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	20.	13.	6.	2.	0.	0.	1.	0.	0.	0.	42.
X -----> O	16.	8.	4.	2.	0.	1.	1.	0.	1.	0.	33.
X -----> X	8.	3.	1.	0.	0.	0.	0.	0.	0.	0.	12.
O -----> O	291.	86.	29.	14.	6.	2.	1.	0.	0.	0.	429.
O <----> O	20.	8.	3.	2.	0.	0.	0.	0.	0.	0.	33.
TOTAL	355.	118.	43.	20.	6.	3.	3.	0.	1.	0.	549.
TPIAL (COL/MCD REG)	0.069	0.121	0.158	0.111	0.000	0.000	0.500	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.060	0.075	0.082	0.083	0.082	0.082	0.083	0.083	0.083	0.083	
TRIAL (COL/MCD DEC)	0.083	0.127	0.136	0.107	0.100	0.250	0.500	0.000	0.000	0.000	
T STATISTICS	2.574	1.672	0.469	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.556	0.619	0.600	0.500	0.000	0.000	0.500	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.556	0.579	0.582	0.577	0.577	0.569	0.568	0.568	0.560	0.560	
NET (COL/MCD DEC)	0.560	0.564	0.500	0.375	0.250	0.250	0.333	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.333	0.273	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.333	0.314	0.300	0.286	0.286	0.279	0.273	0.273	0.267	0.267	
REPEAT (COL/MCD DEC)	0.267	0.190	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.081	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.011	0.042	0.047	0.000	0.000	-0.333	0.000	0.000	-1.000	0.000	
GAIN (% OF POP ASC)	0.011	0.019	0.021	0.021	0.020	0.018	0.018	0.018	0.016	0.016	
GAIN (% OF POP DEC)	0.016	0.026	0.000	-0.061	-0.154	-0.286	-0.250	-1.000	-1.000	0.000	
TRIAL (% OF POP REG)	0.056	0.110	0.140	0.100	0.000	0.000	0.333	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.056	0.070	0.076	0.076	0.076	0.075	0.077	0.077	0.077	0.077	
TRIAL (% OF POP DEC)	0.077	0.113	0.118	0.091	0.077	0.143	0.250	0.000	0.000	0.000	
T STATISTICS	2.405	1.481	0.321	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.079	0.136	0.163	0.100	0.000	0.000	0.333	0.000	0.000	0.000	
NET (% OF POP ASC)	0.079	0.093	0.099	0.099	0.098	0.097	0.099	0.099	0.098	0.098	
NET (% OF POP DEC)	0.098	0.134	0.132	0.091	0.077	0.143	0.250	0.000	0.000	0.000	
T STATISTICS	2.074	1.048	-0.148	0.000	0.000	0.000	0.000	0.000	0.000		
REPLAT (% OF POP REG)	0.023	0.025	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.023	0.023	0.023	0.022	0.022	0.022	0.022	0.022	0.022	0.022	
REPEAT (% OF POP DEC)	0.022	0.021	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.147	-0.559	-0.886	0.000	0.000	0.000	0.000	0.000	0.000		

BANNER TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
0 -----> X	17.	11.	7.	2.	2.	0.	1.	0.	2.	0.	42.
X -----> 0	15.	5.	5.	1.	2.	1.	2.	1.	1.	0.	33.
X -----> X	7.	2.	0.	1.	1.	0.	1.	0.	0.	0.	12.
0 -----> 0	205.	100.	48.	27.	27.	6.	6.	4.	2.	4.	429.
0 <----> 0	17.	7.	3.	1.	1.	2.	0.	0.	1.	1.	33.
TOTAL	261.	125.	63.	32.	33.	9.	10.	5.	6.	5.	549.
TRIAL (COL/MCD REG)	0.071	0.093	0.121	0.067	0.067	0.000	0.143	0.000	0.400	0.000	
TRIAL (COL/MCD ASC)	0.071	0.078	0.084	0.083	0.082	0.081	0.082	0.081	0.084	0.083	
TRIAL (COL/MCD DEC)	0.083	0.094	0.095	0.079	0.085	0.103	0.143	0.143	0.200	0.000	
NET (COL/MCD REG)	0.531	0.688	0.583	0.667	0.500	0.000	0.333	0.000	0.667	0.000	
NET (COL/MCD ASC)	0.531	0.583	0.583	0.587	0.582	0.574	0.563	0.556	0.560	0.560	
NET (COL/MCD DEC)	0.560	0.581	0.519	0.467	0.417	0.375	0.429	0.500	0.667	0.000	
REPEAT (COL/MCD REG)	0.318	0.286	0.000	0.500	0.333	0.000	0.333	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.318	0.310	0.265	0.278	0.282	0.275	0.279	0.273	0.267	0.267	
REPEAT (COL/MCD DEC)	0.267	0.217	0.188	0.273	0.222	0.167	0.200	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.008	0.048	0.032	0.031	0.000	-0.111	-0.100	-0.200	0.167	0.000	
GAIN (% OF POP ASC)	0.008	0.021	0.022	0.023	0.021	0.019	0.017	0.015	0.017	0.016	
GAIN (% OF POP DEC)	0.016	0.024	0.006	-0.010	-0.029	-0.057	-0.038	0.000	0.091	0.000	
TRIAL (% OF POP REG)	0.065	0.088	0.111	0.063	0.061	0.000	0.100	0.000	0.333	0.000	
TRIAL (% OF POP ASC)	0.065	0.073	0.078	0.077	0.076	0.075	0.075	0.074	0.077	0.077	
TRIAL (% OF POP DEC)	0.077	0.087	0.086	0.070	0.074	0.086	0.115	0.125	0.182	0.000	
NET (% OF POP REG)	0.092	0.104	0.111	0.094	0.091	0.000	0.200	0.000	0.333	0.000	
NET (% OF POP ASC)	0.092	0.096	0.098	0.098	0.097	0.096	0.098	0.097	0.099	0.098	
NET (% OF POP DEC)	0.098	0.104	0.104	0.100	0.103	0.114	0.154	0.125	0.182	0.000	
REPEAT (% OF POP REG)	0.027	0.016	0.000	0.031	0.030	0.000	0.100	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.027	0.023	0.020	0.021	0.021	0.021	0.023	0.022	0.022	0.022	
REPEAT (% OF POP DEC)	0.022	0.017	0.018	0.030	0.029	0.029	0.038	0.000	0.000	0.000	

BANNER TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
0 -----> X	1.	0.	2.	5.	7.	21.	6.	0.	0.	0.	0.	42.
X -----> 0	2.	0.	4.	2.	4.	13.	6.	1.	0.	0.	1.	33.
X -----> X	0.	2.	0.	1.	1.	7.	1.	0.	0.	0.	0.	12.
0 -----> 0	13.	11.	24.	43.	90.	199.	39.	6.	4.	0.	0.	429.
0 <----> 0	2.	1.	2.	0.	7.	18.	3.	0.	0.	0.	0.	33.
TOTAL	18.	14.	32.	51.	109.	258.	55.	7.	4.	0.	1.	549.
TRIAL (COL/MCD REG)	0.063	0.000	0.071	0.104	0.067	0.088	0.125	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.063	0.036	0.054	0.077	0.072	0.081	0.085	0.084	0.083	0.083	0.083	
TRIAL (COL/MCD DEC)	0.083	0.084	0.086	0.087	0.085	0.091	0.103	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.333	0.000	0.333	0.714	0.636	0.618	0.500	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.333	0.333	0.333	0.500	0.556	0.590	0.575	0.568	0.568	0.568	0.560	
NET (COL/MCD DEC)	0.560	0.569	0.569	0.591	0.576	0.563	0.429	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	1.000	0.000	0.333	0.200	0.350	0.143	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.500	0.250	0.273	0.250	0.306	0.279	0.273	0.273	0.273	0.267	
REPEAT (COL/MCD DEC)	0.267	0.279	0.244	0.270	0.265	0.276	0.111	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	-0.056	0.000	-0.063	0.059	0.028	0.031	0.000	-0.143	0.000	0.000	-1.000	
GAIN (% OF POP ASC)	-0.056	-0.031	-0.047	0.000	0.013	0.023	0.020	0.018	0.018	0.018	0.016	
GAIN (% OF POP DEC)	0.016	0.019	0.019	0.025	0.021	0.018	-0.030	-0.167	-0.200	-1.000	-1.000	
TRIAL (% OF POP REG)	0.056	0.000	0.063	0.098	0.064	0.081	0.109	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.056	0.031	0.047	0.070	0.067	0.075	0.078	0.077	0.077	0.077	0.077	
TRIAL (% OF POP DEC)	0.077	0.077	0.079	0.080	0.078	0.083	0.090	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.056	0.143	0.063	0.118	0.073	0.109	0.127	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.056	0.094	0.078	0.096	0.085	0.098	0.101	0.099	0.099	0.099	0.098	
NET (% OF POP DEC)	0.098	0.100	0.099	0.101	0.099	0.108	0.104	0.000	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.000	0.143	0.000	0.020	0.009	0.027	0.018	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.063	0.031	0.026	0.018	0.023	0.022	0.022	0.022	0.022	0.022	
REPEAT (% OF POP DEC)	0.022	0.023	0.019	0.021	0.021	0.025	0.015	0.000	0.000	0.000	0.000	

BANNER TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	0.	0.	3.	4.	20.	11.	3.	1.	0.	0.	42.
X -----> O	0.	0.	1.	0.	5.	16.	7.	0.	3.	0.	1.	33.
X -----> X	0.	0.	0.	2.	1.	8.	1.	0.	0.	0.	0.	12.
O -----> O	0.	2.	10.	39.	46.	256.	53.	15.	7.	0.	1.	429.
O <----> O	0.	0.	2.	2.	0.	23.	4.	2.	0.	0.	0.	33.
TOTAL	0.	2.	13.	46.	56.	323.	76.	20.	11.	0.	2.	549.
TRIAL (COL/MCD REG)	0.000	0.000	0.000	0.068	0.080	0.067	0.162	0.150	0.125	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.000	0.000	0.052	0.065	0.066	0.080	0.083	0.083	0.083	0.083	
TRIAL (COL/MCD DEC)	0.083	0.083	0.084	0.086	0.087	0.088	0.155	0.138	0.111	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.926	0.785	2.818	1.078	0.000	0.000	0.000		
NET (COL/MCD REG)	0.000	0.000	0.000	1.000	0.444	0.556	0.611	1.000	0.250	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.000	0.000	0.750	0.538	0.551	0.567	0.586	0.568	0.568	0.560	
NET (COL/MCD DEC)	0.560	0.560	0.560	0.568	0.549	0.565	0.577	0.500	0.200	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	0.000	0.000	1.000	0.167	0.333	0.125	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.000	0.000	0.667	0.333	0.333	0.293	0.293	0.273	0.273	0.267	
REPEAT (COL/MCD DEC)	0.267	0.267	0.267	0.273	0.238	0.250	0.083	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	-0.077	0.065	-0.018	0.012	0.053	0.150	-0.182	0.000	-0.500	
GAIN (% OF POP ASC)	0.000	0.000	-0.067	0.033	0.009	0.011	0.017	0.022	0.018	0.018	0.016	
GAIN (% OF POP DEC)	0.016	0.016	0.016	0.019	0.014	0.019	0.037	0.000	-0.231	-0.500	-0.500	
TRIAL (% OF POP REG)	0.000	0.000	0.000	0.065	0.071	0.062	0.145	0.150	0.091	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.000	0.049	0.060	0.061	0.074	0.076	0.077	0.077	0.077	
TRIAL (% OF POP DEC)	0.077	0.077	0.077	0.079	0.080	0.081	0.138	0.121	0.077	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.852	0.765	2.681	0.997	0.000	0.000	0.000		
NET (% OF POP REG)	0.000	0.000	0.000	0.109	0.089	0.087	0.158	0.150	0.091	0.000	0.000	
NET (% OF POP ASC)	0.000	0.000	0.000	0.082	0.085	0.086	0.097	0.099	0.099	0.099	0.098	
NET (% OF POP DEC)	0.098	0.098	0.099	0.101	0.100	0.102	0.147	0.121	0.077	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.456	0.528	1.896	0.455	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.000	0.000	0.000	0.043	0.018	0.025	0.013	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.000	0.000	0.033	0.026	0.025	0.023	0.022	0.022	0.022	0.022	
REPEAT (% OF POP DEC)	0.022	0.022	0.022	0.022	0.020	0.021	0.009	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	-0.619	-0.315	-1.012	-0.886	0.000	0.000	0.000		

BANNER TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
0 -----> X	20.	1.	1.	5.	1.	8.	2.	0.	0.	4.	42.
X -----> 0	16.	2.	2.	2.	1.	3.	1.	1.	1.	4.	33.
X -----> X	8.	0.	2.	0.	0.	1.	0.	0.	0.	1.	12.
0 -----> 0	291.	7.	23.	22.	11.	27.	11.	4.	1.	32.	429.
0 <----> 0	21.	1.	2.	3.	1.	2.	2.	0.	0.	1.	33.
TOTAL	356.	11.	30.	32.	14.	41.	16.	5.	2.	42.	549.
TRIAL (COL/MCD REG)	0.060	0.111	0.038	0.167	0.077	0.216	0.133	0.000	0.000	0.108	
TRIAL (COL/MCD ASC)	0.060	0.062	0.060	0.068	0.068	0.081	0.082	0.082	0.081	0.083	
TRIAL (COL/MCD DEC)	0.083	0.128	0.129	0.146	0.140	0.149	0.105	0.095	0.105	0.108	
T STATISTICS	2.606	2.555	3.109	2.397	2.551	0.636	0.292	0.509	0.566		
NET (COL/MCD REG)	0.556	0.333	0.333	0.714	0.500	0.727	0.667	0.000	0.000	0.500	
NET (COL/MCD ASC)	0.556	0.538	0.524	0.551	0.549	0.581	0.585	0.576	0.567	0.560	
NET (COL/MCD DEC)	0.560	0.564	0.583	0.606	0.577	0.583	0.462	0.400	0.444	0.500	
REPEAT (COL/MCD REG)	0.333	0.000	0.500	0.000	0.000	0.250	0.000	0.000	0.000	0.200	
REPEAT (COL/MCD ASC)	0.333	0.308	0.333	0.313	0.303	0.297	0.289	0.282	0.275	0.267	
REPEAT (COL/MCD DEC)	0.267	0.190	0.211	0.133	0.154	0.167	0.125	0.143	0.167	0.200	
T STATISTICS	-1.081	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.011	-0.091	-0.033	0.094	0.000	0.122	0.063	-0.200	-0.500	0.000	
GAIN (% OF POP ASC)	0.011	0.008	0.005	0.012	0.011	0.021	0.022	0.020	0.018	0.016	
GAIN (% OF POP DEC)	0.016	0.026	0.033	0.046	0.033	0.038	-0.015	-0.041	-0.023	0.000	
TRIAL (% OF POP REG)	0.056	0.091	0.033	0.156	0.071	0.195	0.125	0.000	0.000	0.095	
TRIAL (% OF POP ASC)	0.056	0.057	0.055	0.063	0.063	0.074	0.076	0.075	0.075	0.077	
TRIAL (% OF POP DEC)	0.077	0.114	0.115	0.132	0.125	0.132	0.092	0.082	0.091	0.095	
T STATISTICS	2.433	2.414	3.004	2.261	2.396	0.511	0.142	0.375	0.475		
NET (% OF POP REG)	0.079	0.091	0.100	0.156	0.071	0.220	0.125	0.000	0.000	0.119	
NET (% OF POP ASC)	0.079	0.079	0.081	0.086	0.086	0.097	0.098	0.097	0.097	0.098	
NET (% OF POP DEC)	0.098	0.135	0.137	0.145	0.142	0.151	0.108	0.102	0.114	0.119	
T STATISTICS	2.196	2.161	2.258	1.802	2.024	0.269	0.091	0.355	0.468		
REPEAT (% OF POP REG)	0.022	0.000	0.067	0.000	0.000	0.024	0.000	0.000	0.000	0.024	
REPEAT (% OF POP ASC)	0.022	0.022	0.025	0.023	0.023	0.023	0.022	0.022	0.022	0.022	
REPEAT (% OF POP DEC)	0.022	0.021	0.022	0.013	0.017	0.019	0.015	0.020	0.023	0.024	
T STATISTICS	-0.134	0.014	-1.863	-0.440	-0.234	-0.380	-0.073	0.041	0.090		

CHARMIN TISSUE 7 DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS

SHARE OF TRANSACTIONS = 0.205
SHARE OF EXPOSURES = 0.221

SWITCHING TOWARD AND COUPON USAGE = 25
SWITCHING AWAY AND COUPON USAGE = 12
LOYAY TO TEST AND COUPON USAGE = 15
OTHER SWITCHING AND COUPON USAGE = 54
LOYAL TO OTHER AND COUPON USAGE = 15

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	29.	22.	6.	4.	3.	2.	2.	2.	0.	5.	75.
X -----> O	27.	23.	9.	7.	7.	3.	2.	0.	0.	4.	82.
X -----> X	22.	12.	7.	3.	3.	4.	0.	3.	1.	0.	55.
O -----> O	156.	78.	52.	48.	27.	15.	8.	6.	4.	17.	411.
O <----> O	22.	8.	3.	3.	4.	0.	2.	2.	2.	1.	47.
TOTAL	256.	143.	77.	65.	44.	24.	14.	13.	7.	27.	670.
TRIAL (COL/MCD REG)	0.140	0.204	0.098	0.073	0.088	0.118	0.167	0.200	0.000	0.217	
TRIAL (COL/MCD ASC)	0.140	0.162	0.152	0.142	0.138	0.137	0.138	0.139	0.137	0.141	
TRIAL (COL/MCD DEC)	0.141	0.141	0.110	0.115	0.137	0.162	0.176	0.179	0.172	0.217	
NET (COL/MCD REG)	0.518	0.489	0.400	0.364	0.300	0.400	0.500	1.000	0.000	0.556	
NET (COL/MCD ASC)	0.518	0.505	0.491	0.480	0.467	0.465	0.466	0.473	0.473	0.478	
NET (COL/MCD DEC)	0.478	0.455	0.429	0.439	0.467	0.550	0.600	0.636	0.556	0.556	
REPEAT (COL/MCD REG)	0.449	0.343	0.438	0.300	0.300	0.571	0.000	1.000	1.000	0.000	
REPEAT (COL/MCD ASC)	0.449	0.405	0.410	0.400	0.392	0.402	0.395	0.409	0.414	0.401	
REPEAT (COL/MCD DEC)	0.401	0.375	0.396	0.378	0.407	0.471	0.400	0.500	0.200	0.000	
GAIN (% OF POP REG)	0.008	-0.007	-0.039	-0.046	-0.091	-0.042	0.000	0.154	0.000	0.037	
GAIN (% OF POP ASC)	0.008	0.003	-0.004	-0.009	-0.015	-0.016	-0.016	-0.013	-0.012	-0.010	
GAIN (% OF POP DEC)	-0.010	-0.022	-0.030	-0.026	-0.016	0.024	0.049	0.064	0.029	0.037	
TRIAL (% OF POP REG)	0.113	0.154	0.078	0.062	0.068	0.083	0.143	0.154	0.000	0.185	
TRIAL (% OF POP ASC)	0.113	0.128	0.120	0.113	0.109	0.108	0.109	0.110	0.109	0.112	
TRIAL (% OF POP DEC)	0.112	0.111	0.089	0.093	0.109	0.129	0.148	0.149	0.147	0.185	
NET (% OF POP REG)	0.199	0.238	0.169	0.108	0.136	0.250	0.143	0.385	0.143	0.185	
NET (% OF POP ASC)	0.199	0.213	0.206	0.194	0.190	0.192	0.191	0.195	0.194	0.194	
NET (% OF POP DEC)	0.194	0.191	0.166	0.165	0.194	0.224	0.213	0.234	0.176	0.185	
REPEAT (% OF POP REG)	0.086	0.084	0.091	0.046	0.068	0.167	0.000	0.231	0.143	0.000	
REPEAT (% OF POP ASC)	0.086	0.085	0.086	0.081	0.080	0.084	0.082	0.085	0.086	0.082	
REPEAT (% OF POP DEC)	0.082	0.080	0.077	0.072	0.085	0.094	0.066	0.085	0.029	0.000	

CHARMIN TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
0 -----> X	59.	7.	3.	6.	0.	0.	0.	0.	0.	0.	75.
X -----> 0	56.	16.	5.	5.	0.	0.	0.	0.	0.	0.	82.
X -----> X	44.	8.	3.	0.	0.	0.	0.	0.	0.	0.	55.
0 -----> 0	283.	85.	34.	6.	2.	1.	0.	0.	0.	0.	411.
0 <----> 0	37.	7.	1.	1.	1.	0.	0.	0.	0.	0.	47.
TOTAL	479.	123.	46.	18.	3.	1.	0.	0.	0.	0.	670.
TRIAL (COL/MCD REG)	0.156	0.071	0.079	0.462	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.156	0.138	0.134	0.142	0.141	0.141	0.141	0.141	0.141	0.141	
TRIAL (COL/MCD DEC)	0.141	0.104	0.164	0.353	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.558	0.516	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.513	0.304	0.375	0.545	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.513	0.478	0.473	0.478	0.478	0.478	0.478	0.478	0.478	0.478	
NET (COL/MCD DEC)	0.478	0.381	0.474	0.545	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.440	0.333	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.440	0.419	0.417	0.401	0.401	0.401	0.401	0.401	0.401	0.401	
REPEAT (COL/MCD DEC)	0.401	0.297	0.231	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.513	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.006	-0.073	-0.043	0.056	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.006	-0.010	-0.012	-0.011	-0.010	-0.010	-0.010	-0.010	-0.010	-0.010	
GAIN (% OF POP DEC)	-0.010	-0.052	-0.015	0.045	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.123	0.057	0.065	0.333	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.123	0.110	0.106	0.113	0.112	0.112	0.112	0.112	0.112	0.112	
TRIAL (% OF POP DEC)	0.112	0.084	0.132	0.273	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.460	0.563	2.432	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.215	0.122	0.130	0.333	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.215	0.196	0.191	0.195	0.194	0.194	0.194	0.194	0.194	0.194	
NET (% OF POP DEC)	0.194	0.141	0.176	0.273	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-2.177	-0.386	0.949	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.092	0.065	0.065	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.092	0.086	0.085	0.083	0.082	0.082	0.082	0.082	0.082	0.082	
REPEAT (% OF POP DEC)	0.082	0.058	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.459	-1.203	-1.426	0.000	0.000	0.000	0.000	0.000	0.000		

CHARMIN TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	31.	23.	8.	3.	1.	1.	1.	3.	1.	3.	75.
X -----> O	31.	24.	13.	6.	3.	1.	1.	0.	1.	2.	82.
X -----> X	23.	12.	7.	4.	5.	1.	2.	1.	0.	0.	55.
O -----> O	179.	89.	52.	37.	15.	15.	9.	6.	4.	5.	411.
O <----> O	23.	8.	3.	4.	3.	2.	2.	2.	0.	0.	47.
TOTAL	287.	156.	83.	54.	27.	20.	15.	12.	6.	10.	670.
TRIAL (COL/MCD REG)	0.133	0.192	0.127	0.068	0.053	0.056	0.083	0.273	0.200	0.375	
TRIAL (COL/MCD ASC)	0.133	0.153	0.149	0.141	0.138	0.135	0.134	0.137	0.137	0.141	
TRIAL (COL/MCD DEC)	0.141	0.147	0.117	0.111	0.137	0.167	0.222	0.292	0.308	0.375	
NET (COL/MCD REG)	0.500	0.489	0.381	0.333	0.250	0.500	0.500	1.000	0.500	0.600	
NET (COL/MCD ASC)	0.500	0.495	0.477	0.468	0.462	0.462	0.463	0.473	0.474	0.478	
NET (COL/MCD DEC)	0.478	0.463	0.438	0.481	0.556	0.643	0.667	0.700	0.571	0.600	
REPEAT (COL/MCD REG)	0:426	0.333	0.350	0.400	0.625	0.500	0.667	1.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.426	0.389	0.382	0.383	0.398	0.400	0.406	0.410	0.407	0.401	
REPEAT (COL/MCD DEC)	0.401	0.386	0.426	0.481	0.529	0.444	0.429	0.250	0.000	0.000	
GAIN (% OF POP REG)	0.000	-0.006	-0.060	-0.056	-0.074	0.000	0.000	0.250	0.000	0.100	
GAIN (% OF POP ASC)	0.000	-0.002	-0.011	-0.016	-0.018	-0.018	-0.017	-0.012	-0.012	-0.010	
GAIN (% OF POP DEC)	-0.010	-0.018	-0.026	-0.007	0.022	0.063	0.093	0.143	0.063	0.100	
TRIAL (% OF POP REG)	0.108	0.147	0.096	0.056	0.037	0.050	0.067	0.250	0.167	0.300	
TRIAL (% OF POP ASC)	0.108	0.122	0.118	0.112	0.109	0.107	0.106	0.109	0.109	0.112	
TRIAL (% OF POP DEC)	0.112	0.115	0.093	0.090	0.111	0.143	0.186	0.250	0.250	0.300	
NET (% OF POP REG)	0.188	0.224	0.181	0.130	0.222	0.100	0.200	0.333	0.167	0.300	
NET (% OF POP ASC)	0.188	0.201	0.198	0.191	0.193	0.190	0.190	0.193	0.192	0.194	
NET (% OF POP DEC)	0.194	0.198	0.181	0.181	0.211	0.206	0.256	0.286	0.250	0.300	
REPEAT (% OF POP REG)	0.080	0.077	0.084	0.074	0.185	0.050	0.133	0.083	0.000	0.000	
REPEAT (% OF POP ASC)	0.080	0.079	0.080	0.079	0.084	0.083	0.084	0.084	0.083	0.082	
REPEAT (% OF POP DFC)	0.082	0.084	0.088	0.090	0.100	0.063	0.070	0.036	0.000	0.000	

CHARMIN TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	8.	1.	2.	5.	24.	32.	1.	2.	0.	0.	0.	75.
X -----> O	3.	3.	4.	7.	26.	33.	4.	2.	0.	0.	0.	82.
X -----> X	2.	2.	8.	7.	11.	24.	1.	0.	0.	0.	0.	55.
O -----> O	25.	14.	30.	42.	88.	180.	24.	8.	0.	0.	0.	411.
O <----> O	4.	3.	2.	5.	8.	24.	1.	0.	0.	0.	0.	47.
TOTAL	42.	23.	46.	66.	157.	293.	31.	12.	0.	0.	0.	670.
TRIAL (COL/MCD REG)	0.216	0.056	0.059	0.096	0.200	0.136	0.038	0.200	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.216	0.164	0.124	0.113	0.153	0.145	0.140	0.141	0.141	0.141	0.141	
TRIAL (COL/MCD DEC)	0.141	0.135	0.138	0.144	0.151	0.129	0.083	0.200	0.000	0.000	0.000	
NET (COL/MCD REG)	0.727	0.250	0.333	0.417	0.480	0.492	0.200	0.500	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.727	0.600	0.524	0.485	0.482	0.486	0.477	0.478	0.478	0.478	0.478	
NET (COL/MCD DEC)	0.478	0.459	0.465	0.471	0.476	0.473	0.333	0.500	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.400	0.400	0.667	0.500	0.297	0.421	0.200	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.400	0.400	0.545	0.528	0.411	0.415	0.407	0.401	0.401	0.401	0.401	
REPEAT (COL/MCD DEC)	0.401	0.402	0.402	0.374	0.356	0.391	0.143	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.119	-0.087	-0.043	-0.030	-0.013	-0.003	-0.097	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.119	0.046	0.009	-0.006	-0.009	-0.006	-0.011	-0.010	-0.010	-0.010	-0.010	
GAIN (% OF POP DEC)	-0.010	-0.019	-0.017	-0.014	-0.012	-0.012	-0.070	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.190	0.043	0.043	0.076	0.153	0.109	0.032	0.167	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.190	0.138	0.099	0.090	0.120	0.115	0.111	0.112	0.112	0.112	0.112	
TRIAL (% OF POP DEC)	0.112	0.107	0.109	0.114	0.120	0.104	0.070	0.167	0.000	0.000	0.000	
NET (% OF POP REG)	0.238	0.130	0.217	0.182	0.223	0.191	0.065	0.167	0.000	0.000	0.000	
NET (% OF POP ASC)	0.238	0.200	0.207	0.198	0.210	0.201	0.195	0.194	0.194	0.194	0.194	
NET (% OF POP DEC)	0.194	0.191	0.193	0.191	0.193	0.179	0.093	0.167	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.048	0.087	0.174	0.106	0.070	0.082	0.032	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.048	0.062	0.108	0.107	0.090	0.086	0.084	0.082	0.082	0.082	0.082	
REPEAT (% OF POP DEC)	0.082	0.084	0.084	0.077	0.073	0.074	0.023	0.000	0.000	0.000	0.000	

CHARMIN TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	1.	0.	2.	5.	4.	55.	6.	1.	1.	0.	0.	75.
X -----> O	0.	0.	4.	2.	14.	48.	11.	2.	1.	0.	0.	82.
X -----> X	1.	0.	3.	6.	12.	30.	3.	0.	0.	0.	0.	55.
O -----> O	1.	4.	12.	43.	60.	229.	47.	14.	1.	0.	0.	411.
O <----> O	1.	1.	0.	5.	5.	31.	3.	1.	0.	0.	0.	47.
TOTAL	4.	5.	21.	61.	95.	393.	70.	18.	3.	0.	0.	670.
TRIAL (COL/MCD REG)	0.333	0.000	0.143	0.094	0.058	0.175	0.107	0.063	0.500	0.000	0.000	
TRIAL (COL/MCD ASC)	0.333	0.125	0.136	0.107	0.083	0.146	0.142	0.139	0.141	0.141	0.141	
TRIAL (COL/MCD DEC)	0.141	0.140	0.141	0.141	0.146	0.162	0.108	0.111	0.500	0.000	0.000	
T STATISTICS	0.000	0.000	0.060	0.915	2.318	-0.869	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	1.000	0.000	0.333	0.714	0.222	0.534	0.353	0.333	0.500	0.000	0.000	
NET (COL/MCD ASC)	1.000	1.000	0.429	0.571	0.375	0.496	0.480	0.477	0.478	0.478	0.478	
NET (COL/MCD DEC)	0.478	0.474	0.474	0.480	0.469	0.504	0.364	0.400	0.500	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	0.000	0.429	0.750	0.462	0.385	0.214	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	1.000	1.000	0.500	0.625	0.524	0.433	0.410	0.404	0.401	0.401	0.401	
REPEAT (COL/MCD DEC)	0.401	0.397	0.397	0.395	0.372	0.347	0.176	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	-1.911	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.250	0.000	-0.095	0.049	-0.105	0.018	-0.071	-0.056	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.250	0.111	-0.033	0.022	-0.043	-0.002	-0.009	-0.010	-0.010	-0.010	-0.010	
GAIN (% OF POP DEC)	-0.010	-0.012	-0.012	-0.009	-0.016	0.002	-0.066	-0.048	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.250	0.000	0.095	0.082	0.042	0.140	0.086	0.056	0.333	0.000	0.000	
TRIAL (% OF POP ASC)	0.250	0.111	0.100	0.088	0.065	0.116	0.112	0.111	0.112	0.112	0.112	
TRIAL (% OF POP DEC)	0.112	0.111	0.112	0.112	0.116	0.130	0.088	0.095	0.333	0.000	0.000	
T STATISTICS	0.000	0.000	0.212	0.782	2.414	-0.782	-0.247	0.000	0.000	0.000		
NET (% OF POP REG)	0.500	0.000	0.238	0.180	0.168	0.216	0.129	0.056	0.333	0.000	0.000	
NET (% OF POP ASC)	0.500	0.222	0.233	0.198	0.183	0.206	0.197	0.193	0.194	0.194	0.194	
NET (% OF POP DEC)	0.194	0.192	0.194	0.192	0.193	0.198	0.121	0.095	0.333	0.000	0.000	
T STATISTICS	0.000	0.000	-0.557	-0.098	0.456	-1.898	-1.163	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.250	0.000	0.143	0.098	0.126	0.076	0.043	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.250	0.111	0.133	0.110	0.118	0.090	0.085	0.082	0.082	0.082	0.082	
REPEAT (% OF POP DEC)	0.082	0.081	0.082	0.080	0.078	0.068	0.033	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	-1.046	-1.039	-2.116	-1.836	-1.392	0.000	0.000	0.000		

CHARMIN TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	59.	1.	5.	4.	0.	3.	0.	1.	0.	2.	75.
X -----> O	56.	3.	4.	6.	1.	6.	1.	1.	0.	4.	82.
X -----> X	44.	1.	7.	0.	0.	2.	0.	0.	0.	1.	55.
O -----> O	284.	11.	29.	26.	5.	24.	8.	1.	0.	23.	411.
O <----> O	37.	2.	3.	2.	0.	2.	0.	0.	0.	1.	47.
TOTAL	480.	18.	48.	38.	6.	37.	9.	3.	0.	31.	670.
TRIAL (COL/MCD REG)	0.155	0.071	0.135	0.125	0.000	0.103	0.000	0.500	0.000	0.077	
TRIAL (COL/MCD ASC)	0.155	0.152	0.151	0.149	0.147	0.145	0.143	0.144	0.144	0.141	
TRIAL (COL/MCD DEC)	0.141	0.105	0.108	0.098	0.086	0.092	0.083	0.107	0.077	0.077	
T STATISTICS	-1.522	-1.293	-1.378	-1.420	-1.198	-1.025	-0.525	-0.959	-0.959		
NET (COL/MCD REG)	0.513	0.250	0.556	0.400	0.000	0.333	0.000	0.500	0.000	0.333	
NET (COL/MCD ASC)	0.513	0.504	0.508	0.500	0.496	0.486	0.483	0.483	0.483	0.478	
NET (COL/MCD DEC)	0.478	0.381	0.395	0.345	0.316	0.333	0.333	0.375	0.333	0.333	
REPEAT (COL/MCD REG)	0.440	0.250	0.636	0.000	0.000	0.250	0.000	0.000	0.000	0.200	
REPEAT (COL/MCD ASC)	0.440	0.433	0.452	0.430	0.426	0.415	0.412	0.409	0.409	0.401	
REPEAT (COL/MCD DEC)	0.401	0.297	0.303	0.136	0.188	0.200	0.143	0.167	0.200	0.200	
T STATISTICS	-1.513	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.006	-0.111	0.021	-0.053	-0.167	-0.081	-0.111	0.000	0.000	-0.065	
GAIN (% OF POP ASC)	0.006	0.002	0.004	0.000	-0.002	-0.006	-0.008	-0.008	-0.008	-0.010	
GAIN (% OF POP DEC)	-0.010	-0.053	-0.047	-0.073	-0.081	-0.075	-0.070	-0.059	-0.065	-0.065	
TRIAL (% OF POP REG)	0.123	0.056	0.104	0.105	0.000	0.081	0.000	0.333	0.000	0.065	
TRIAL (% OF POP ASC)	0.123	0.120	0.119	0.118	0.117	0.115	0.113	0.114	0.114	0.112	
TRIAL (% OF POP DEC)	0.112	0.084	0.087	0.081	0.070	0.075	0.070	0.088	0.065	0.065	
T STATISTICS	-1.432	-1.193	-1.224	-1.329	-1.117	-0.907	-0.450	-0.858	-0.858		
NET (% OF POP REG)	0.215	0.111	0.250	0.105	0.000	0.135	0.000	0.333	0.000	0.097	
NET (% OF POP ASC)	0.215	0.211	0.214	0.207	0.205	0.201	0.198	0.199	0.199	0.194	
NET (% OF POP DEC)	0.194	0.142	0.145	0.105	0.105	0.112	0.093	0.118	0.097	0.097	
T STATISTICS	-2.138	-1.873	-2.782	-2.245	-1.965	-1.731	-1.156	-1.402	-1.402		
REPEAT (% OF POP REG)	0.092	0.056	0.146	0.000	0.000	0.054	0.000	0.000	0.000	0.032	
REPEAT (% OF POP ASC)	0.092	0.090	0.095	0.089	0.088	0.086	0.085	0.085	0.085	0.082	
REPEAT (% OF POP DEC)	0.082	0.058	0.058	0.024	0.035	0.037	0.023	0.029	0.032	0.032	
T STATISTICS	-1.435	-1.327	-2.602	-1.708	-1.548	-1.453	-1.149	-1.035	-1.035		

CHARMIN TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

SHARE OF TRANSACTIONS = 0.205
SHARE OF EXPOSURES = 0.220

SWITCHING TOWARD AND COUPON USAGE = 25
SWITCHING AWAY AND COUPON USAGE = 12
LOYAY TO TEST AND COUPON USAGE = 15
OTHER SWITCHING AND COUPON USAGE = 54
LOYAL TO OTHER AND COUPON USAGE = 15

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	11.	7.	2.	1.	2.	0.	1.	0.	0.	1.	25.
X -----> O	3.	3.	2.	0.	2.	0.	2.	0.	0.	0.	12.
X -----> X	6.	5.	2.	1.	1.	0.	0.	0.	0.	0.	15.
O -----> O	12.	11.	8.	11.	7.	1.	1.	1.	1.	1.	54.
O <----> O	5.	2.	1.	1.	1.	0.	1.	2.	1.	1.	15.
TOTAL	37.	28.	15.	14.	13.	1.	5.	3.	2.	3.	121.
TRIAL (COL/MCD REG)	0.393	0.350	0.182	0.077	0.200	0.000	0.333	0.000	0.000	0.333	
TRIAL (COL/MCD ASC)	0.393	0.375	0.339	0.292	0.280	0.277	0.279	0.270	0.264	0.266	
TRIAL (COL/MCD DEC)	0.266	0.212	0.152	0.143	0.182	0.167	0.182	0.125	0.200	0.333	
NET (COL/MCD REG)	0.786	0.700	0.500	1.000	0.500	0.000	0.333	0.000	0.000	1.000	
NET (COL/MCD ASC)	0.786	0.750	0.714	0.724	0.697	0.697	0.667	0.667	0.667	0.676	
NET (COL/MCD DEC)	0.676	0.609	0.538	0.556	0.500	0.500	0.500	1.000	1.000	1.000	
REPEAT (COL/MCD REG)	0.667	0.625	0.500	1.000	0.333	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.667	0.647	0.619	0.636	0.600	0.600	0.556	0.556	0.556	0.556	
REPEAT (COL/MCD DEC)	0.556	0.500	0.400	0.333	0.200	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.216	0.143	0.000	0.071	0.000	0.000	-0.200	0.000	0.000	0.333	
GAIN (% OF POP ASC)	0.216	0.185	0.150	0.138	0.121	0.120	0.106	0.103	0.102	0.107	
GAIN (% OF POP DEC)	0.107	0.060	0.018	0.024	0.000	0.000	0.000	0.125	0.200	0.333	
TRIAL (% OF POP REG)	0.297	0.250	0.133	0.071	0.154	0.000	0.200	0.000	0.000	0.333	
TRIAL (% OF POP ASC)	0.297	0.277	0.250	0.223	0.215	0.213	0.212	0.207	0.203	0.207	
TRIAL (% OF POP DEC)	0.207	0.167	0.125	0.122	0.148	0.143	0.154	0.125	0.200	0.333	
NET (% OF POP REG)	0.459	0.429	0.267	0.143	0.231	0.000	0.200	0.000	0.000	0.333	
NET (% OF POP ASC)	0.459	0.446	0.412	0.372	0.355	0.352	0.345	0.336	0.331	0.331	
NET (% OF POP DEC)	0.331	0.274	0.196	0.171	0.185	0.143	0.154	0.125	0.200	0.333	
REPEAT (% OF POP REG)	0.162	0.179	0.133	0.071	0.077	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.162	0.169	0.162	0.149	0.140	0.139	0.133	0.129	0.127	0.124	
REPEAT (% OF POP DEC)	0.124	0.107	0.071	0.049	0.037	0.000	0.000	0.000	0.000	0.000	

CHARMIN TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	20.	2.	2.	1.	0.	0.	0.	0.	0.	0.	25.
X -----> O	9.	2.	0.	1.	0.	0.	0.	0.	0.	0.	12.
X -----> X	13.	2.	0.	0.	0.	0.	0.	0.	0.	0.	15.
O -----> O	34.	14.	6.	0.	0.	0.	0.	0.	0.	0.	54.
O <----> O	9.	4.	1.	1.	0.	0.	0.	0.	0.	0.	15.
TOTAL	85.	24.	9.	3.	0.	0.	0.	0.	0.	0.	121.
TRIAL (COL/MCD REG)	0.317	0.100	0.222	0.500	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.317	0.265	0.261	0.266	0.266	0.266	0.266	0.266	0.266	0.266	
TRIAL (COL/MCD DEC)	0.266	0.161	0.273	0.500	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.611	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.690	0.500	1.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.690	0.667	0.686	0.676	0.676	0.676	0.676	0.676	0.676	0.676	
NET (COL/MCD DEC)	0.676	0.625	0.750	0.500	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.591	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.591	0.577	0.577	0.556	0.556	0.556	0.556	0.556	0.556	0.556	
REPEAT (COL/MCD DEC)	0.556	0.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.129	0.000	0.222	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.129	0.101	0.110	0.107	0.107	0.107	0.107	0.107	0.107	0.107	
GAIN (% OF POP DEC)	0.107	0.056	0.167	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.235	0.083	0.222	0.333	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.235	0.202	0.203	0.207	0.207	0.207	0.207	0.207	0.207	0.207	
TRIAL (% OF POP DEC)	0.207	0.139	0.250	0.333	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.197	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.388	0.167	0.222	0.333	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.388	0.339	0.331	0.331	0.331	0.331	0.331	0.331	0.331	0.331	
NET (% OF POP DEC)	0.331	0.194	0.250	0.333	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-2.072	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.153	0.083	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.153	0.138	0.127	0.124	0.124	0.124	0.124	0.124	0.124	0.124	
REPEAT (% OF POP DEC)	0.124	0.056	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.486	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

CHARMIN TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	12.	7.	4.	0.	0.	0.	1.	0.	0.	1.	25.
X -----> O	3.	3.	2.	2.	1.	1.	0.	0.	0.	0.	12.
X -----> X	6.	6.	1.	2.	0.	0.	0.	0.	0.	0.	15.
O -----> O	13.	16.	9.	10.	1.	2.	2.	0.	0.	1.	54.
O <----> O	6.	2.	0.	1.	1.	2.	1.	2.	0.	0.	15.
TOTAL	40.	34.	16.	15.	3.	5.	4.	2.	0.	2.	121.
TRIAL (COL/MCD REG)	0.387	0.280	0.308	0.000	0.000	0.000	0.250	0.000	0.000	0.500	
TRIAL (COL/MCD ASC)	0.387	0.339	0.333	0.287	0.280	0.267	0.267	0.261	0.261	0.266	
TRIAL (COL/MCD DEC)	0.266	0.206	0.158	0.080	0.143	0.167	0.250	0.250	0.500	0.500	
NET (COL/MCD REG)	0.800	0.700	0.667	0.000	0.000	0.000	1.000	0.000	0.000	1.000	
NET (COL/MCD ASC)	0.800	0.760	0.742	0.697	0.676	0.657	0.667	0.667	0.667	0.676	
NET (COL/MCD DEC)	0.676	0.591	0.500	0.333	0.500	0.667	1.000	1.000	1.000	1.000	
REPEAT (COL/MCD REG)	0.667	0.667	0.333	0.500	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.667	0.667	0.619	0.600	0.577	0.556	0.556	0.556	0.556	0.556	
REPEAT (COL/MCD DEC)	0.556	0.500	0.333	0.333	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.225	0.118	0.125	-0.133	-0.333	-0.200	0.250	0.000	0.000	0.500	
GAIN (% OF POP ASC)	0.225	0.176	0.167	0.124	0.111	0.097	0.103	0.101	0.101	0.107	
GAIN (% OF POP DEC)	0.107	0.049	0.000	-0.065	0.000	0.077	0.250	0.250	0.500	0.500	
TRIAL (% OF POP REG)	0.300	0.206	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.500	
TRIAL (% OF POP ASC)	0.300	0.257	0.256	0.219	0.213	0.204	0.205	0.202	0.202	0.207	
TRIAL (% OF POP DEC)	0.207	0.160	0.128	0.065	0.125	0.154	0.250	0.250	0.500	0.500	
NET (% OF POP REG)	0.450	0.382	0.313	0.133	0.000	0.000	0.250	0.000	0.000	0.500	
NET (% OF POP ASC)	0.450	0.419	0.400	0.362	0.352	0.336	0.333	0.328	0.328	0.331	
NET (% OF POP DEC)	0.331	0.272	0.191	0.129	0.125	0.154	0.250	0.250	0.500	0.500	
REPEAT (% OF POP REG)	0.150	0.176	0.063	0.133	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.150	0.162	0.144	0.143	0.139	0.133	0.128	0.126	0.126	0.124	
REPEAT (% OF POP DEC)	0.124	0.111	0.064	0.065	0.000	0.000	0.000	0.000	0.000	0.000	

CHARMIN TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	2.	0.	0.	2.	7.	12.	1.	1.	0.	0.	0.	25.
X -----> O	0.	2.	0.	3.	3.	4.	0.	0.	0.	0.	0.	12.
X -----> X	0.	0.	1.	2.	5.	7.	0.	0.	0.	0.	0.	15.
O -----> O	3.	2.	5.	10.	16.	15.	2.	1.	0.	0.	0.	54.
O <----> O	3.	2.	1.	1.	1.	6.	1.	0.	0.	0.	0.	15.
TOTAL	8.	6.	7.	18.	32.	44.	4.	2.	0.	0.	0.	121.
TRIAL (COL/MCD REG)	0.250	0.000	0.000	0.154	0.292	0.364	0.250	0.500	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.250	0.167	0.111	0.129	0.200	0.261	0.261	0.266	0.266	0.266	0.266	
TRIAL (COL/MCD DEC)	0.266	0.267	0.280	0.303	0.333	0.359	0.333	0.500	0.000	0.000	0.000	
NET (COL/MCD REG)	1.000	0.000	0.000	0.400	0.700	0.750	1.000	1.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	1.000	0.500	0.500	0.444	0.579	0.657	0.667	0.676	0.676	0.676	0.676	
NET (COL/MCD DEC)	0.676	0.657	0.697	0.697	0.750	0.778	1.000	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	0.000	1.000	0.400	0.625	0.636	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.000	0.333	0.375	0.500	0.556	0.556	0.556	0.556	0.556	0.556	
REPEAT (COL/MCD DEC)	0.556	0.556	0.600	0.583	0.632	0.636	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.250	-0.333	0.000	-0.056	0.125	0.182	0.250	0.500	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.250	0.000	0.000	-0.026	0.042	0.096	0.101	0.107	0.107	0.107	0.107	
GAIN (% OF POP DEC)	0.107	0.097	0.121	0.130	0.171	0.200	0.333	0.500	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.250	0.000	0.000	0.111	0.219	0.273	0.250	0.500	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.250	0.143	0.095	0.103	0.155	0.200	0.202	0.207	0.207	0.207	0.207	
TRIAL (% OF POP DEC)	0.207	0.204	0.215	0.230	0.256	0.280	0.333	0.500	0.000	0.000	0.000	
NET (% OF POP REG)	0.250	0.000	0.143	0.222	0.375	0.432	0.250	0.500	0.000	0.000	0.000	
NET (% OF POP ASC)	0.250	0.143	0.143	0.179	0.268	0.330	0.328	0.331	0.331	0.331	0.331	
NET (% OF POP DEC)	0.331	0.336	0.355	0.370	0.402	0.420	0.333	0.500	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.000	0.000	0.143	0.111	0.156	0.159	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.000	0.048	0.077	0.113	0.130	0.126	0.124	0.124	0.124	0.124	
REPEAT (% OF POP DEC)	0.124	0.133	0.140	0.140	0.146	0.140	0.000	0.000	0.000	0.000	0.000	

CHARMIN TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	0.	0.	2.	1.	19.	2.	0.	1.	0.	0.	25.
X -----> O	0.	0.	1.	0.	4.	6.	1.	0.	0.	0.	0.	12.
X -----> X	0.	0.	1.	1.	3.	9.	1.	0.	0.	0.	0.	15.
O -----> O	0.	1.	2.	7.	14.	23.	5.	2.	0.	0.	0.	54.
C <----> O	1.	0.	0.	4.	0.	7.	3.	0.	0.	0.	0.	15.
TOTAL	1.	1.	4.	14.	22.	64.	12.	2.	1.	0.	0.	121.
TRIAL (COL/MCD REG)	0.000	0.000	0.000	0.154	0.067	0.388	0.200	0.000	1.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.000	0.000	0.118	0.094	0.272	0.264	0.258	0.266	0.266	0.266	
TRIAL (COL/MCD DEC)	0.266	0.269	0.272	0.278	0.299	0.355	0.231	0.333	1.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	2.715	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.000	0.000	0.000	1.000	0.200	0.760	0.667	0.000	1.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.000	0.000	0.667	0.375	0.667	0.667	0.667	0.676	0.676	0.676	
NET (COL/MCD DEC)	0.676	0.676	0.676	0.694	0.676	0.759	0.750	1.000	1.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	0.000	0.500	1.000	0.429	0.600	0.500	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.000	0.500	0.667	0.500	0.560	0.556	0.556	0.556	0.556	0.556	
REPEAT (COL/MCD DEC)	0.556	0.556	0.556	0.560	0.542	0.588	0.500	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	-0.250	0.143	-0.136	0.203	0.083	0.000	1.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	-0.167	0.050	-0.048	0.104	0.102	0.100	0.107	0.107	0.107	
GAIN (% OF POP DEC)	0.107	0.108	0.109	0.122	0.119	0.190	0.133	0.333	1.000	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.000	0.000	0.143	0.045	0.297	0.167	0.000	1.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.000	0.100	0.071	0.208	0.203	0.200	0.207	0.207	0.207	
TRIAL (% OF POP DEC)	0.207	0.208	0.210	0.217	0.228	0.278	0.200	0.333	1.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	1.289	2.678	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.000	0.000	0.250	0.214	0.182	0.438	0.250	0.000	1.000	0.000	0.000	
NET (% OF POP ASC)	0.000	0.000	0.167	0.200	0.190	0.340	0.331	0.325	0.331	0.331	0.331	
NET (% OF POP DEC)	0.331	0.333	0.336	0.339	0.356	0.405	0.267	0.333	1.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	1.359	2.389	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.000	0.000	0.250	0.071	0.136	0.141	0.083	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.000	0.167	0.100	0.119	0.132	0.127	0.125	0.124	0.124	0.124	
REPEAT (% OF POP DEC)	0.124	0.125	0.126	0.122	0.129	0.127	0.067	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.356	0.120	0.000	0.000	0.000	0.000	0.000		

CHARMIN TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
0 -----> X	20.	1.	0.	1.	0.	1.	0.	1.	0.	1.	25.
X -----> 0	9.	1.	1.	0.	0.	1.	0.	0.	0.	0.	12.
X -----> X	13.	0.	1.	0.	0.	1.	0.	0.	0.	0.	15.
0 -----> 0	34.	1.	8.	5.	0.	3.	2.	0.	0.	1.	54.
0 <----> 0	9.	2.	1.	1.	0.	1.	0.	0.	0.	1.	15.
TOTAL	85.	5.	11.	7.	0.	7.	2.	1.	0.	3.	121.
TRIAL (COL/MCD REG)	0.317	0.250	0.000	0.143	0.000	0.200	0.000	1.000	0.000	0.333	
TRIAL (COL/MCD ASC)	0.317	0.313	0.276	0.265	0.265	0.261	0.256	0.264	0.264	0.266	
TRIAL (COL/MCD DEC)	0.266	0.161	0.148	0.222	0.273	0.273	0.333	0.500	0.333	0.333	
T STATISTICS	-1.611	-1.641	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.690	0.500	0.000	1.000	0.000	0.500	0.000	1.000	0.000	1.000	
NET (COL/MCD ASC)	0.690	0.677	0.656	0.667	0.667	0.657	0.657	0.667	0.667	0.676	
NET (COL/MCD DEC)	0.676	0.625	0.667	0.800	0.750	0.750	1.000	1.000	1.000	1.000	
REPEAT (COL/MCD REG)	0.591	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.591	0.565	0.560	0.560	0.560	0.556	0.556	0.556	0.556	0.556	
REPEAT (COL/MCD DEC)	0.556	0.400	0.500	0.500	0.500	0.500	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.129	0.000	-0.091	0.143	0.000	0.000	0.000	1.000	0.000	0.333	
GAIN (% OF POP ASC)	0.129	0.122	0.099	0.102	0.102	0.096	0.094	0.102	0.102	0.107	
GAIN (% OF POP DEC)	0.107	0.056	0.065	0.150	0.154	0.154	0.333	0.500	0.333	0.333	
TRIAL (% OF POP REG)	0.235	0.200	0.000	0.143	0.000	0.143	0.000	1.000	0.000	0.333	
TRIAL (% OF POP ASC)	0.235	0.233	0.208	0.204	0.204	0.200	0.197	0.203	0.203	0.207	
TRIAL (% OF POP DEC)	0.207	0.139	0.129	0.200	0.231	0.231	0.333	0.500	0.333	0.333	
T STATISTICS	-1.197	-1.237	-0.080	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.388	0.200	0.091	0.143	0.000	0.286	0.000	1.000	0.000	0.333	
NET (% OF POP ASC)	0.388	0.378	0.347	0.333	0.333	0.330	0.325	0.331	0.331	0.331	
NET (% OF POP DEC)	0.331	0.194	0.194	0.250	0.308	0.308	0.333	0.500	0.333	0.333	
T STATISTICS	-2.072	-1.881	-0.838	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.153	0.000	0.091	0.000	0.000	0.143	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.153	0.144	0.139	0.130	0.130	0.130	0.128	0.127	0.127	0.124	
REPEAT (% OF POP DEC)	0.124	0.056	0.065	0.050	0.077	0.077	0.000	0.000	0.000	0.000	
T STATISTICS	-1.486	-1.165	-1.099	0.000	0.000	0.000	0.000	0.000	0.000		

CHARMIN TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

SHARE OF TRANSACTIONS = 0.205
SHARE OF EXPOSURES = 0.221

SWITCHING TOWARD AND COUPON USAGE = 0
SWITCHING AWAY AND COUPON USAGE = 0
LOYAY TO TEST AND COUPON USAGE = 0
OTHER SWITCHING AND COUPON USAGE = 0
LOYAL TO OTHER AND COUPON USAGE = 0

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
0 -----> X	18.	15.	4.	3.	1.	2.	1.	2.	0.	4.	50.
X -----> 0	24.	20.	7.	7.	5.	3.	0.	0.	0.	4.	70.
X -----> X	16.	7.	5.	2.	2.	4.	0.	3.	1.	0.	40.
0 -----> 0	144.	67.	44.	37.	20.	14.	7.	5.	3.	16.	357.
0 <----> 0	17.	6.	2.	2.	3.	0.	1.	0.	1.	0.	32.
TOTAL	219.	115.	62.	51.	31.	23.	9.	10.	5.	24.	549.
TRIAL (COL/MCD REG)	0.101	0.170	0.080	0.071	0.042	0.125	0.111	0.286	0.000	0.200	
TRIAL (COL/MCD ASC)	0.101	0.124	0.117	0.111	0.107	0.108	0.108	0.111	0.110	0.114	
TRIAL (COL/MCD DEC)	0.114	0.123	0.099	0.107	0.125	0.161	0.175	0.194	0.167	0.200	
NET (COL/MCD REG)	0.429	0.429	0.364	0.300	0.167	0.400	1.000	1.000	0.000	0.500	
NET (COL/MCD ASC)	0.429	0.429	0.420	0.408	0.394	0.394	0.400	0.411	0.411	0.417	
NET (COL/MCD DEC)	0.417	0.410	0.395	0.406	0.455	0.563	0.636	0.600	0.500	0.500	
REPEAT (COL/MCD REG)	0.400	0.259	0.417	0.222	0.286	0.571	0.000	1.000	1.000	0.000	
REPEAT (COL/MCD ASC)	0.400	0.343	0.354	0.341	0.337	0.353	0.353	0.371	0.377	0.364	
REPEAT (COL/MCD DEC)	0.364	0.343	0.395	0.387	0.455	0.533	0.500	0.500	0.200	0.000	
GAIN (% OF POP REG)	-0.027	-0.043	-0.048	-0.078	-0.129	-0.043	0.111	0.200	0.000	0.000	
GAIN (% OF POP ASC)	-0.027	-0.033	-0.035	-0.040	-0.046	-0.046	-0.043	-0.038	-0.038	-0.036	
GAIN (% OF POP DEC)	-0.036	-0.042	-0.042	-0.039	-0.020	0.028	0.063	0.051	0.000	0.000	
TRIAL (% OF POP REG)	0.082	0.130	0.065	0.059	0.032	0.087	0.111	0.200	0.000	0.167	
TRIAL (% OF POP ASC)	0.082	0.099	0.093	0.089	0.086	0.086	0.086	0.088	0.088	0.091	
TRIAL (% OF POP DEC)	0.091	0.097	0.079	0.085	0.098	0.127	0.146	0.154	0.138	0.167	
NET (% OF POP REG)	0.155	0.191	0.145	0.098	0.097	0.261	0.111	0.500	0.200	0.167	
NET (% OF POP ASC)	0.155	0.168	0.164	0.157	0.153	0.158	0.157	0.163	0.164	0.164	
NET (% OF POP DEC)	0.164	0.170	0.158	0.163	0.196	0.239	0.229	0.256	0.172	0.167	
REPEAT (% OF POP REG)	0.073	0.061	0.081	0.039	0.065	0.174	0.000	0.300	0.200	0.000	
REPEAT (% OF POP ASC)	0.073	0.069	0.071	0.067	0.067	0.072	0.071	0.075	0.076	0.073	
REPEAT (% OF POP DEC)	0.073	0.073	0.079	0.078	0.098	0.113	0.083	0.103	0.034	0.000	

CHARMIN TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	39.	5.	1.	5.	0.	0.	0.	0.	0.	0.	50.
X -----> O	47.	14.	5.	4.	0.	0.	0.	0.	0.	0.	70.
X -----> X	31.	6.	3.	0.	0.	0.	0.	0.	0.	0.	40.
O -----> O	249.	71.	28.	6.	2.	1.	0.	0.	0.	0.	357.
O <----> O	28.	3.	0.	0.	1.	0.	0.	0.	0.	0.	32.
TOTAL	394.	99.	37.	15.	3.	1.	0.	0.	0.	0.	549.
TRIAL (COL/MCD REG)	0.123	0.063	0.034	0.455	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.123	0.111	0.106	0.115	0.114	0.114	0.114	0.114	0.114	0.114	
TRIAL (COL/MCD DEC)	0.114	0.089	0.136	0.333	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.007	0.495	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.453	0.263	0.167	0.556	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.453	0.419	0.405	0.417	0.417	0.417	0.417	0.417	0.417	0.417	
NET (COL/MCD DEC)	0.417	0.324	0.400	0.556	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.397	0.300	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.397	0.378	0.377	0.364	0.364	0.364	0.364	0.364	0.364	0.364	
REPEAT (COL/MCD DEC)	0.364	0.281	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.151	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.020	-0.091	-0.108	0.067	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.020	-0.034	-0.040	-0.037	-0.036	-0.036	-0.036	-0.036	-0.036	-0.036	
GAIN (% OF POP DEC)	-0.036	-0.077	-0.054	0.053	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.099	0.051	0.027	0.333	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.099	0.089	0.085	0.092	0.091	0.091	0.091	0.091	0.091	0.091	
TRIAL (% OF POP DEC)	0.091	0.071	0.107	0.263	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.027	0.441	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.178	0.111	0.108	0.333	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.178	0.164	0.160	0.165	0.164	0.164	0.164	0.164	0.164	0.164	
NET (% OF POP DEC)	0.164	0.129	0.161	0.263	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.385	-0.069	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.079	0.061	0.081	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.079	0.075	0.075	0.073	0.073	0.073	0.073	0.073	0.073	0.073	
REPEAT (% OF POP DEC)	0.073	0.058	0.054	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.837	-0.586	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

CHARMIN TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	19.	16.	4.	3.	1.	1.	0.	3.	1.	2.	50.
X -----> O	28.	21.	11.	4.	2.	0.	1.	0.	1.	2.	70.
X -----> X	17.	6.	6.	2.	5.	1.	2.	1.	0.	0.	40.
O -----> O	166.	73.	43.	27.	14.	13.	7.	6.	4.	4.	357.
O <----> O	17.	6.	3.	3.	2.	0.	1.	0.	0.	0.	32.
TOTAL	247.	122.	67.	39.	24.	15.	11.	10.	6.	8.	549.
TRIAL (COL/MCD REG)	0.094	0.168	0.080	0.091	0.059	0.071	0.000	0.333	0.200	0.333	
TRIAL (COL/MCD ASC)	0.094	0.118	0.112	0.111	0.108	0.107	0.105	0.110	0.111	0.114	
TRIAL (COL/MCD DEC)	0.114	0.131	0.106	0.120	0.136	0.167	0.214	0.300	0.273	0.333	
NET (COL/MCD REG)	0.404	0.432	0.267	0.429	0.333	1.000	0.000	1.000	0.500	0.500	
NET (COL/MCD ASC)	0.404	0.417	0.394	0.396	0.394	0.400	0.396	0.412	0.414	0.417	
NET (COL/MCD DEC)	0.417	0.425	0.417	0.524	0.571	0.636	0.600	0.667	0.500	0.500	
REPEAT (COL/MCD REG)	0.378	0.222	0.353	0.333	0.714	1.000	0.667	1.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.378	0.319	0.326	0.326	0.353	0.359	0.368	0.374	0.370	0.364	
REPEAT (COL/MCD DEC)	0.364	0.354	0.447	0.524	0.600	0.500	0.429	0.250	0.000	0.000	
GAIN (% OF POP REG)	-0.036	-0.041	-0.104	-0.026	-0.042	0.067	-0.091	0.300	0.000	0.000	
GAIN (% OF POP ASC)	-0.036	-0.038	-0.048	-0.046	-0.046	-0.043	-0.044	-0.037	-0.037	-0.036	
GAIN (% OF POP DEC)	-0.036	-0.036	-0.033	0.009	0.027	0.060	0.057	0.125	0.000	0.000	
TRIAL (% OF POP REG)	0.077	0.131	0.060	0.077	0.042	0.067	0.000	0.300	0.167	0.250	
TRIAL (% OF POP ASC)	0.077	0.095	0.089	0.088	0.086	0.086	0.084	0.088	0.089	0.091	
TRIAL (% OF POP DEC)	0.091	0.103	0.083	0.097	0.108	0.140	0.171	0.250	0.214	0.250	
NET (% OF POP REG)	0.146	0.180	0.149	0.128	0.250	0.133	0.182	0.400	0.167	0.250	
NET (% OF POP ASC)	0.146	0.157	0.156	0.154	0.158	0.158	0.158	0.163	0.163	0.164	
NET (% OF POP DEC)	0.164	0.179	0.178	0.195	0.230	0.220	0.257	0.292	0.214	0.250	
REPEAT (% OF POP REG)	0.069	0.049	0.090	0.051	0.208	0.067	0.182	0.100	0.000	0.000	
REPEAT (% OF POP ASC)	0.069	0.062	0.067	0.065	0.072	0.072	0.074	0.075	0.074	0.073	
REPEAT (% OF POP DEC)	0.073	0.076	0.094	0.097	0.122	0.080	0.086	0.042	0.000	0.000	

CHARMIN TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	6.	1.	2.	3.	17.	20.	0.	1.	0.	0.	0.	50.
X -----> O	3.	1.	4.	4.	23.	29.	4.	2.	0.	0.	0.	70.
X -----> X	2.	2.	7.	5.	6.	17.	1.	0.	0.	0.	0.	40.
O -----> O	22.	12.	25.	32.	72.	165.	22.	7.	0.	0.	0.	357.
O <----> O	1.	1.	1.	4.	7.	18.	0.	0.	0.	0.	0.	32.
TOTAL	34.	17.	39.	48.	125.	249.	27.	10.	0.	0.	0.	549.
TRIAL (COL/MCD REG)	0.207	0.071	0.071	0.077	0.177	0.099	0.000	0.125	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.207	0.163	0.127	0.109	0.141	0.120	0.114	0.114	0.114	0.114	0.114	
TRIAL (COL/MCD DEC)	0.114	0.107	0.109	0.111	0.116	0.090	0.033	0.125	0.000	0.000	0.000	
NET (COL/MCD REG)	0.667	0.500	0.333	0.429	0.425	0.408	0.000	0.333	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.667	0.636	0.529	0.500	0.453	0.434	0.419	0.417	0.417	0.417	0.417	
NET (COL/MCD DEC)	0.417	0.396	0.394	0.398	0.396	0.375	0.143	0.333	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.400	0.667	0.636	0.556	0.207	0.370	0.200	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.400	0.500	0.579	0.571	0.386	0.379	0.370	0.364	0.364	0.364	0.364	
REPEAT (COL/MCD DEC)	0.364	0.362	0.353	0.319	0.293	0.340	0.143	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.088	0.000	-0.051	-0.021	-0.048	-0.036	-0.148	-0.100	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.088	0.059	0.011	0.000	-0.023	-0.029	-0.035	-0.036	-0.036	-0.036	-0.036	
GAIN (% OF POP DEC)	-0.036	-0.045	-0.046	-0.046	-0.049	-0.049	-0.135	-0.100	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.176	0.059	0.051	0.063	0.136	0.080	0.000	0.100	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.176	0.137	0.100	0.087	0.110	0.096	0.091	0.091	0.091	0.091	0.091	
TRIAL (% OF POP DEC)	0.091	0.085	0.086	0.089	0.092	0.073	0.027	0.100	0.000	0.000	0.000	
NET (% OF POP REG)	0.235	0.176	0.231	0.167	0.184	0.149	0.037	0.100	0.000	0.000	0.000	
NET (% OF POP ASC)	0.235	0.216	0.222	0.203	0.194	0.172	0.165	0.164	0.164	0.164	0.164	
NET (% OF POP DEC)	0.164	0.159	0.159	0.153	0.151	0.136	0.054	0.100	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.059	0.118	0.179	0.104	0.048	0.068	0.037	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.059	0.078	0.122	0.116	0.084	0.076	0.074	0.073	0.073	0.073	0.073	
REPEAT (% OF POP DEC)	0.073	0.074	0.072	0.063	0.058	0.063	0.027	0.000	0.000	0.000	0.000	

CHARMIN TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
C -----> X	1.	0.	2.	3.	3.	36.	4.	1.	0.	0.	0.	50.
X -----> O	0.	0.	3.	2.	10.	42.	10.	2.	1.	0.	0.	70.
X -----> X	1.	0.	2.	5.	9.	21.	2.	0.	0.	0.	0.	40.
O -----> O	1.	3.	10.	36.	46.	206.	42.	12.	1.	0.	0.	357.
C <----> O	0.	1.	0.	1.	5.	24.	0.	1.	0.	0.	0.	32.
TOTAL	3.	4.	17.	47.	73.	329.	58.	16.	2.	0.	0.	549.
TRIAL (COL/MCD REG)	0.500	0.000	0.167	0.075	0.056	0.135	0.087	0.071	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.500	0.167	0.167	0.103	0.080	0.119	0.116	0.114	0.114	0.114	0.114	
TRIAL (COL/MCD DEC)	0.114	0.112	0.113	0.112	0.115	0.125	0.082	0.067	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.269	1.295	-0.846	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	1.000	0.000	0.400	0.600	0.231	0.462	0.286	0.333	0.000	0.000	0.000	
NET (COL/MCD ASC)	1.000	1.000	0.500	0.545	0.375	0.441	0.422	0.420	0.417	0.417	0.417	
NET (COL/MCD DEC)	0.417	0.412	0.412	0.412	0.404	0.427	0.278	0.250	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	0.000	0.400	0.714	0.474	0.333	0.167	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	1.000	1.000	0.500	0.615	0.531	0.400	0.374	0.367	0.364	0.364	0.364	
REPEAT (COL/MCD DEC)	0.364	0.358	0.358	0.356	0.330	0.295	0.133	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	-2.316	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.333	0.000	-0.059	0.021	-0.096	-0.018	-0.103	-0.063	-0.500	0.000	0.000	
GAIN (% OF POP ASC)	0.333	0.143	0.000	0.014	-0.042	-0.025	-0.034	-0.035	-0.036	-0.036	-0.036	
GAIN (% OF POP DEC)	-0.036	-0.038	-0.039	-0.038	-0.044	-0.035	-0.105	-0.111	-0.500	0.000	0.000	
TRIAL (% OF POP REG)	0.333	0.000	0.118	0.064	0.041	0.109	0.069	0.063	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.333	0.143	0.125	0.085	0.063	0.095	0.092	0.091	0.091	0.091	0.091	
TRIAL (% OF POP DEC)	0.091	0.090	0.090	0.090	0.092	0.101	0.066	0.056	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	-0.591	0.206	1.388	-0.825	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.667	0.000	0.235	0.170	0.164	0.173	0.103	0.063	0.000	0.000	0.000	
NET (% OF POP ASC)	0.667	0.286	0.250	0.197	0.181	0.175	0.168	0.165	0.164	0.164	0.164	
NET (% OF POP DEC)	0.164	0.161	0.162	0.160	0.159	0.158	0.092	0.056	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	-1.165	-0.811	-0.627	-1.822	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.333	0.000	0.118	0.106	0.123	0.064	0.034	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.333	0.143	0.125	0.113	0.118	0.080	0.075	0.073	0.073	0.073	0.073	
REPEAT (% OF POP DEC)	0.073	0.071	0.072	0.070	0.067	0.057	0.026	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	-1.005	-1.383	-2.430	-1.682	0.000	0.000	0.000	0.000		

CHARMIN TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	39.	0.	5.	3.	0.	2.	0.	0.	0.	1.	50.
X -----> O	47.	2.	3.	6.	1.	5.	1.	1.	0.	4.	70.
X -----> X	31.	1.	6.	0.	0.	1.	0.	0.	0.	1.	40.
O -----> O	250.	10.	21.	21.	5.	21.	6.	1.	0.	22.	357.
O <----> O	28.	0.	2.	1.	0.	1.	0.	0.	0.	0.	32.
TOTAL	395.	13.	37.	31.	6.	30.	7.	2.	0.	28.	549.
TRIAL (COL/MCD REG)	0.123	0.000	0.179	0.120	0.000	0.083	0.000	0.000	0.000	0.043	
TRIAL (COL/MCD ASC)	0.123	0.119	0.124	0.124	0.122	0.120	0.118	0.118	0.118	0.114	
TRIAL (COL/MCD DEC)	0.114	0.090	0.098	0.071	0.051	0.056	0.033	0.042	0.043	0.043	
T STATISTICS	-0.971	-0.605	-1.362	-1.638	-1.441	-1.439	-1.146	-1.092	-1.092		
NET (COL/MCD REG)	0.453	0.000	0.625	0.333	0.000	0.286	0.000	0.000	0.000	0.200	
NET (COL/MCD ASC)	0.453	0.443	0.458	0.448	0.443	0.434	0.430	0.426	0.426	0.417	
NET (COL/MCD DEC)	0.417	0.324	0.344	0.250	0.200	0.214	0.143	0.167	0.200	0.200	
REPEAT (COL/MCD REG)	0.397	0.333	0.667	0.000	0.000	0.167	0.000	0.000	0.000	0.200	
REPEAT (COL/MCD ASC)	0.397	0.395	0.422	0.396	0.392	0.379	0.375	0.371	0.371	0.364	
REPEAT (COL/MCD DEC)	0.364	0.281	0.276	0.100	0.143	0.154	0.143	0.167	0.200	0.200	
T STATISTICS	-1.151	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.020	-0.154	0.054	-0.097	-0.167	-0.100	-0.143	-0.500	0.000	-0.107	
GAIN (% OF POP ASC)	-0.020	-0.025	-0.018	-0.023	-0.025	-0.029	-0.031	-0.033	-0.033	-0.036	
GAIN (% OF POP DEC)	-0.036	-0.078	-0.071	-0.115	-0.123	-0.119	-0.135	-0.133	-0.107	-0.107	
TRIAL (% OF POP REG)	0.099	0.000	0.135	0.097	0.000	0.067	0.000	0.000	0.000	0.036	
TRIAL (% OF POP ASC)	0.099	0.096	0.099	0.099	0.098	0.096	0.094	0.094	0.094	0.091	
TRIAL (% OF POP DEC)	0.091	0.071	0.078	0.058	0.041	0.045	0.027	0.033	0.036	0.036	
T STATISTICS	-0.999	-0.625	-1.314	-1.594	-1.406	-1.402	-1.131	-1.045	-1.045		
NET (% OF POP REG)	0.177	0.077	0.297	0.097	0.000	0.100	0.000	0.000	0.000	0.071	
NET (% OF POP ASC)	0.177	0.174	0.184	0.179	0.176	0.172	0.170	0.169	0.169	0.164	
NET (% OF POP DEC)	0.164	0.130	0.135	0.077	0.068	0.075	0.054	0.067	0.071	0.071	
T STATISTICS	-1.346	-1.086	-2.662	-2.366	-2.107	-1.869	-1.480	-1.357	-1.357		
REPEAT (% OF POP REG)	0.078	0.077	0.162	0.000	0.000	0.033	0.000	0.000	0.000	0.036	
REPEAT (% OF POP ASC)	0.078	0.078	0.085	0.080	0.079	0.076	0.075	0.075	0.075	0.073	
REPEAT (% OF POP DEC)	0.073	0.058	0.057	0.019	0.027	0.030	0.027	0.033	0.036	0.036	
T STATISTICS	-0.812	-0.854	-2.337	-1.605	-1.446	-1.111	-0.857	-0.776	-0.776		

COTTONELLE TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS

SHARE OF TRANSACTIONS = 0.160
SHARE OF EXPOSURES = 0.204

SWITCHING TOWARD AND COUPON USAGE = 11
SWITCHING AWAY AND COUPON USAGE = 10
LOYAY TO TEST AND COUPON USAGE = 4
OTHER SWITCHING AND COUPON USAGE = 78
LOYAL TO OTHER AND COUPON USAGE = 18

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	21.	18.	6.	9.	3.	2.	1.	1.	1.	2.	64.
X -----> O	26.	16.	9.	5.	4.	1.	1.	0.	0.	2.	64.
X -----> X	23.	3.	4.	6.	4.	1.	0.	0.	0.	1.	42.
O -----> O	164.	98.	55.	39.	29.	20.	11.	8.	4.	20.	448.
O <----> O	22.	8.	3.	6.	4.	0.	1.	4.	2.	2.	52.
TOTAL	256.	143.	77.	65.	44.	24.	14.	13.	7.	27.	670.
TRIAL (COL/MCD REG)	0.101	0.145	0.094	0.167	0.083	0.091	0.077	0.077	0.143	0.083	
TRIAL (COL/MCD ASC)	0.101	0.118	0.114	0.120	0.118	0.116	0.115	0.114	0.115	0.113	
TRIAL (COL/MCD DEC)	0.113	0.120	0.107	0.112	0.087	0.089	0.088	0.091	0.097	0.083	
NET (COL/MCD REG)	0.447	0.529	0.400	0.643	0.429	0.667	0.500	1.000	1.000	0.500	
NET (COL/MCD ASC)	0.447	0.481	0.469	0.491	0.487	0.492	0.492	0.496	0.500	0.500	
NET (COL/MCD DEC)	0.500	0.531	0.532	0.594	0.556	0.636	0.625	0.667	0.600	0.500	
REPEAT (COL/MCD REG)	0.469	0.158	0.308	0.545	0.500	0.500	0.000	0.000	0.000	0.333	
REPEAT (COL/MCD ASC)	0.469	0.382	0.370	0.391	0.400	0.402	0.398	0.398	0.398	0.396	
REPEAT (COL/MCD DEC)	0.396	0.333	0.421	0.480	0.429	0.333	0.250	0.333	0.333	0.333	
GAIN (% OF POP REG)	-0.020	0.014	-0.039	0.062	-0.023	0.042	0.000	0.077	0.143	0.000	
GAIN (% OF POP ASC)	-0.020	-0.008	-0.013	-0.004	-0.005	-0.003	-0.003	-0.002	0.000	0.000	
GAIN (% OF POP DEC)	0.000	0.012	0.011	0.031	0.016	0.035	0.033	0.043	0.029	0.000	
TRIAL (% OF POP REG)	0.082	0.126	0.078	0.138	0.068	0.083	0.071	0.077	0.143	0.074	
TRIAL (% OF POP ASC)	0.082	0.098	0.095	0.100	0.097	0.097	0.096	0.096	0.096	0.096	
TRIAL (% OF POP DEC)	0.096	0.104	0.092	0.098	0.078	0.082	0.082	0.085	0.088	0.074	
NET (% OF POP REG)	0.172	0.147	0.130	0.231	0.159	0.125	0.071	0.077	0.143	0.111	
NET (% OF POP ASC)	0.172	0.163	0.158	0.166	0.166	0.164	0.162	0.160	0.160	0.158	
NET (% OF POP DEC)	0.158	0.150	0.151	0.160	0.124	0.106	0.098	0.106	0.118	0.111	
REPEAT (% OF POP REG)	0.090	0.021	0.052	0.092	0.091	0.042	0.000	0.000	0.000	0.037	
REPEAT (% OF POP ASC)	0.090	0.065	0.063	0.067	0.068	0.067	0.066	0.064	0.064	0.063	
REPEAT (% OF POP DEC)	0.063	0.046	0.059	0.062	0.047	0.024	0.016	0.021	0.029	0.037	

COTTONELLE TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	41.	17.	1.	2.	2.	0.	1.	0.	0.	0.	64.
X -----> O	56.	5.	2.	0.	1.	0.	0.	0.	0.	0.	64.
X -----> X	33.	4.	4.	0.	0.	1.	0.	0.	0.	0.	42.
O -----> O	331.	71.	24.	18.	3.	1.	0.	0.	0.	0.	448.
O <----> O	38.	8.	5.	1.	0.	0.	0.	0.	0.	0.	52.
TOTAL	499.	105.	36.	21.	6.	2.	1.	0.	0.	0.	670.
TRIAL (COL/MCD REG)	0.100	0.177	0.033	0.095	0.400	0.000	1.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.100	0.115	0.110	0.110	0.112	0.112	0.113	0.113	0.113	0.113	
TRIAL (COL/MCD DEC)	0.113	0.149	0.103	0.179	0.429	0.500	1.000	0.000	0.000	0.000	
T STATISTICS	1.646	-0.254	1.114	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.423	0.773	0.333	1.000	0.667	0.000	1.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.423	0.487	0.484	0.492	0.496	0.496	0.500	0.500	0.500	0.500	
NET (COL/MCD DEC)	0.500	0.742	0.667	0.833	0.750	1.000	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.371	0.444	0.667	0.000	0.000	1.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.371	0.378	0.394	0.394	0.390	0.396	0.396	0.396	0.396	0.396	
REPEAT (COL/MCD DEC)	0.396	0.529	0.625	0.500	0.500	1.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.030	0.114	-0.028	0.095	0.167	0.000	1.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.030	-0.005	-0.006	-0.003	-0.001	-0.001	0.000	0.000	0.000	0.000	
GAIN (% OF POP DEC)	0.000	0.088	0.045	0.133	0.222	0.333	1.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.082	0.162	0.028	0.095	0.333	0.000	1.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.082	0.096	0.092	0.092	0.094	0.094	0.096	0.096	0.096	0.096	
TRIAL (% OF POP DEC)	0.096	0.135	0.091	0.167	0.333	0.333	1.000	0.000	0.000	0.000	
T STATISTICS	2.009	-0.134	1.356	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.148	0.200	0.139	0.095	0.333	0.500	1.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.148	0.157	0.156	0.154	0.156	0.157	0.158	0.158	0.158	0.158	
NET (% OF POP DEC)	0.158	0.187	0.167	0.200	0.444	0.667	1.000	0.000	0.000	0.000	
T STATISTICS	1.201	0.198	0.642	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.066	0.038	0.111	0.000	0.000	0.500	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.066	0.061	0.064	0.062	0.061	0.063	0.063	0.063	0.063	0.063	
REPEAT (% OF POP DEC)	0.063	0.053	0.076	0.033	0.111	0.333	0.000	0.000	0.000	0.000	
T STATISTICS	-0.629	0.461	-0.679	0.000	0.000	0.000	0.000	0.000	0.000		

COTTCNELLE TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	27.	13.	15.	2.	4.	1.	1.	1.	0.	0.	64.
X -----> O	27.	15.	10.	7.	3.	0.	0.	0.	1.	1.	64.
X -----> X	24.	3.	8.	5.	1.	0.	0.	0.	1.	0.	42.
O -----> O	186.	97.	60.	38.	29.	10.	9.	7.	4.	8.	448.
O <----> O	22.	10.	5.	4.	2.	4.	1.	3.	0.	1.	52.
TOTAL	286.	138.	98.	56.	39.	15.	11.	11.	6.	10.	670.
TRIAL (COL/MCD REG)	0.115	0.108	0.188	0.045	0.114	0.067	0.091	0.091	0.000	0.000	
TRIAL (COL/MCD ASC)	0.115	0.113	0.126	0.119	0.119	0.117	0.117	0.116	0.115	0.113	
TRIAL (COL/MCD DEC)	0.113	0.112	0.115	0.070	0.082	0.060	0.057	0.042	0.000	0.000	
NET (COL/MCD REG)	0.500	0.464	0.600	0.222	0.571	1.000	1.000	1.000	0.000	0.000	
NET (COL/MCD ASC)	0.500	0.488	0.514	0.491	0.496	0.500	0.504	0.508	0.504	0.500	
NET (COL/MCD DEC)	0.500	0.500	0.522	0.429	0.583	0.600	0.500	0.333	0.000	0.000	
REPEAT (COL/MCD REG)	0.471	0.167	0.444	0.417	0.250	0.000	0.000	0.000	0.500	0.000	
REPEAT (COL/MCD ASC)	0.471	0.391	0.402	0.404	0.398	0.398	0.398	0.398	0.400	0.396	
REPEAT (COL/MCD DEC)	0.396	0.327	0.405	0.368	0.286	0.333	0.333	0.333	0.333	0.000	
GAIN (% OF POP REG)	0.000	-0.014	0.051	-0.089	0.026	0.067	0.091	0.091	-0.167	-0.100	
GAIN (% OF POP ASC)	0.000	-0.005	0.006	-0.003	-0.002	0.000	0.002	0.003	0.002	0.000	
GAIN (% OF POP DEC)	0.000	0.000	0.008	-0.020	0.022	0.019	0.000	-0.037	-0.125	-0.100	
TRIAL (% OF POP REG)	0.094	0.094	0.153	0.036	0.103	0.067	0.091	0.091	0.000	0.000	
TRIAL (% OF POP ASC)	0.094	0.094	0.105	0.099	0.099	0.098	0.098	0.098	0.097	0.096	
TRIAL (% OF POP DEC)	0.096	0.096	0.098	0.061	0.076	0.057	0.053	0.037	0.000	0.000	
NET (% OF POP REG)	0.178	0.116	0.235	0.125	0.128	0.067	0.091	0.091	0.167	0.000	
NET (% OF PCP ASC)	0.178	0.158	0.172	0.168	0.165	0.163	0.162	0.161	0.161	0.158	
NET (% CF POP DEC)	0.158	0.143	0.159	0.108	0.098	0.075	0.079	0.074	0.063	0.000	
REPEAT (% OF POP REG)	0.084	0.022	0.082	0.089	0.026	0.000	0.000	0.000	0.167	0.000	
REPEAT (% OF POP ASC)	0.084	0.064	0.067	0.069	0.066	0.065	0.064	0.063	0.064	0.063	
REPEAT (% OF POP DEC)	0.063	0.047	0.061	0.047	0.022	0.019	0.026	0.037	0.063	0.000	

COTTONELLE TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	4.	2.	5.	20.	25.	8.	0.	0.	0.	0.	64.
X -----> O	1.	3.	4.	12.	17.	26.	1.	0.	0.	0.	0.	64.
X -----> X	0.	1.	4.	5.	5.	25.	2.	0.	0.	0.	0.	42.
O -----> O	24.	18.	40.	54.	96.	185.	28.	2.	1.	0.	0.	448.
C <----> O	5.	2.	6.	3.	11.	25.	0.	0.	0.	0.	0.	52.
TOTAL	30.	28.	56.	79.	149.	286.	39.	2.	1.	0.	0.	670.
TRIAL (COL/MCD REG)	0.000	0.167	0.042	0.081	0.157	0.106	0.222	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.075	0.059	0.067	0.107	0.107	0.114	0.114	0.113	0.113	0.113	
TRIAL (COL/MCD DEC)	0.113	0.120	0.117	0.125	0.132	0.120	0.205	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.000	0.571	0.333	0.294	0.541	0.490	0.889	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.500	0.429	0.355	0.456	0.471	0.500	0.500	0.500	0.500	0.500	
NET (COL/MCD DEC)	0.500	0.504	0.500	0.509	0.546	0.550	0.889	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	0.250	0.500	0.294	0.227	0.490	0.667	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.200	0.385	0.333	0.288	0.388	0.396	0.396	0.396	0.396	0.396	
REPEAT (COL/MCD DEC)	0.396	0.400	0.406	0.398	0.421	0.500	0.667	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	-0.033	0.036	-0.036	-0.089	0.020	-0.003	0.179	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.033	0.000	-0.018	-0.047	-0.018	-0.011	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP DEC)	0.000	0.002	0.000	0.004	0.019	0.018	0.167	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.143	0.036	0.063	0.134	0.087	0.205	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.069	0.053	0.057	0.091	0.089	0.096	0.096	0.096	0.096	0.096	
TRIAL (% OF POP DEC)	0.096	0.100	0.098	0.104	0.111	0.101	0.190	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.000	0.179	0.107	0.127	0.168	0.175	0.256	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.000	0.086	0.096	0.109	0.135	0.153	0.159	0.158	0.158	0.158	0.158	
NET (% OF POP DEC)	0.158	0.166	0.165	0.171	0.178	0.183	0.238	0.000	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.000	0.036	0.071	0.063	0.034	0.087	0.051	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.017	0.044	0.052	0.044	0.064	0.063	0.063	0.063	0.063	0.063	
REPEAT (% OF POP DEC)	0.063	0.066	0.067	0.067	0.067	0.082	0.048	0.000	0.000	0.000	0.000	

COTTONELLE TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	0.	2.	4.	6.	39.	9.	3.	0.	1.	0.	64.
X -----> O	0.	0.	2.	8.	7.	45.	2.	0.	0.	0.	0.	64.
X -----> X	0.	0.	1.	2.	7.	27.	2.	3.	0.	0.	0.	42.
O -----> O	3.	1.	18.	57.	58.	254.	47.	8.	2.	0.	0.	448.
O <----> O	1.	0.	2.	4.	8.	31.	5.	1.	0.	0.	0.	52.
TOTAL	4.	1.	25.	75.	86.	396.	65.	15.	2.	1.	0.	670.
TRIAL (COL/MCD REG)	0.000	0.000	0.091	0.062	0.083	0.120	0.148	0.250	0.000	1.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.000	0.074	0.065	0.073	0.105	0.109	0.112	0.112	0.113	0.113	
TRIAL (COL/MCD DEC)	0.113	0.114	0.114	0.115	0.123	0.130	0.171	0.267	0.333	1.000	0.000	
T STATISTICS	0.000	0.000	0.662	1.595	1.932	1.701	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.000	0.000	0.500	0.333	0.462	0.464	0.818	1.000	0.000	1.000	0.000	
NET (COL/MCD ASC)	0.000	0.000	0.500	0.375	0.414	0.451	0.484	0.496	0.496	0.500	0.500	
NET (COL/MCD DEC)	0.500	0.500	0.500	0.500	0.518	0.525	0.867	1.000	1.000	1.000	0.000	
REPEAT (COL/MCD REG)	0.000	0.000	0.333	0.200	0.500	0.375	0.503	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.000	0.333	0.231	0.370	0.374	0.379	0.396	0.396	0.396	0.396	
REPEAT (COL/MCD DEC)	0.396	0.396	0.396	0.398	0.419	0.405	0.714	1.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	0.000	-0.053	-0.012	-0.015	0.108	0.200	0.000	1.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	0.000	-0.038	-0.026	-0.019	-0.006	-0.001	-0.001	0.000	0.000	
GAIN (% OF POP DEC)	0.000	0.000	0.000	0.000	0.007	0.010	0.133	0.222	0.333	1.000	0.000	
TRIAL (% OF POP REG)	0.000	0.000	0.080	0.053	0.070	0.098	0.138	0.200	0.000	1.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.067	0.057	0.063	0.087	0.092	0.094	0.094	0.096	0.096	
TRIAL (% OF PCP DEC)	0.096	0.096	0.096	0.097	0.103	0.109	0.157	0.222	0.333	1.000	0.000	
T STATISTICS	0.000	0.000	0.550	1.457	1.818	2.014	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.000	0.000	0.120	0.080	0.151	0.167	0.169	0.400	0.000	1.000	0.000	
NET (% OF POP ASC)	0.000	0.000	0.100	0.086	0.115	0.150	0.152	0.157	0.157	0.158	0.158	
NET (% OF PCP DEC)	0.158	0.159	0.159	0.161	0.172	0.175	0.217	0.389	0.333	1.000	0.000	
T STATISTICS	0.000	0.000	0.894	2.216	1.927	1.557	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.000	0.000	0.040	0.027	0.081	0.068	0.231	0.200	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.000	0.033	0.029	0.052	0.063	0.060	0.063	0.063	0.063	0.063	
REPEAT (% OF POP DEC)	0.063	0.063	0.063	0.064	0.069	0.067	0.060	0.167	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.679	1.570	0.696	-0.098	0.000	0.000	0.000	0.000		

COTTONELLE TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	41.	1.	1.	9.	0.	5.	1.	0.	0.	6.	64.
X -----> O	57.	0.	2.	3.	1.	0.	0.	0.	0.	1.	64.
X -----> X	33.	0.	1.	3.	1.	2.	1.	0.	0.	1.	42.
O -----> O	331.	8.	28.	20.	9.	21.	7.	2.	0.	22.	448.
O <----> O	39.	1.	5.	4.	0.	3.	0.	0.	0.	0.	52.
TOTAL	501.	10.	37.	39.	11.	31.	9.	2.	0.	30.	670.
TRIAL (COL/MCD REG)	0.100	0.100	0.029	0.273	0.000	0.172	0.125	0.000	0.000	0.214	
TRIAL (COL/MCD ASC)	0.100	0.100	0.095	0.107	0.105	0.108	0.109	0.108	0.108	0.113	
TRIAL (COL/MCD DEC)	0.113	0.150	0.154	0.193	0.158	0.179	0.184	0.200	0.214	0.214	
T STATISTICS	1.684	1.762	2.902	1.313	1.804	1.424	1.536	1.725	1.725		
NET (COL/MCD REG)	0.418	1.000	0.333	0.750	0.000	1.000	1.000	0.000	0.000	0.857	
NET (COL/MCD ASC)	0.418	0.424	0.422	0.456	0.452	0.475	0.479	0.479	0.479	0.500	
NET (COL/MCD DEC)	0.500	0.767	0.759	0.808	0.857	0.923	0.875	0.857	0.857	0.857	
REPLAT (COL/MCD REG)	0.367	0.000	0.333	0.500	0.500	1.000	1.000	0.000	0.000	0.500	
REPEAT (COL/MCD ASC)	0.367	0.367	0.366	0.374	0.376	0.388	0.394	0.394	0.394	0.396	
REPEAT (COL/MCD DEC)	0.396	0.563	0.563	0.615	0.714	0.800	0.667	0.500	0.500	0.500	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.032	0.100	-0.027	0.154	-0.091	0.161	0.111	0.000	0.000	0.167	
GAIN (% OF POP ASC)	-0.032	-0.029	-0.029	-0.017	-0.018	-0.010	-0.008	-0.008	-0.008	0.000	
GAIN (% OF POP DEC)	0.000	0.095	0.094	0.131	0.120	0.153	0.146	0.156	0.167	0.167	
TRIAL (% OF POP REG)	0.082	0.100	0.027	0.231	0.000	0.161	0.111	0.000	0.000	0.200	
TRIAL (% OF POP ASC)	0.082	0.082	0.078	0.089	0.087	0.091	0.091	0.091	0.091	0.096	
TRIAL (% OF POP DEC)	0.096	0.136	0.138	0.172	0.145	0.167	0.171	0.188	0.200	0.200	
T STATISTICS	2.075	2.104	3.183	1.624	2.174	1.691	1.814	1.992	1.992		
NET (% OF POP REG)	0.148	0.100	0.054	0.308	0.091	0.226	0.222	0.000	0.000	0.233	
NET (% OF POP ASC)	0.148	0.147	0.141	0.152	0.151	0.154	0.155	0.155	0.155	0.158	
NET (% OF POP DEC)	0.158	0.189	0.195	0.238	0.205	0.222	0.220	0.219	0.233	0.233	
T STATISTICS	1.283	1.454	2.660	1.243	1.575	1.110	0.962	1.154	1.154		
REPEAT (% OF POP REG)	0.066	0.000	0.027	0.077	0.091	0.065	0.111	0.000	0.000	0.033	
REPEAT (% OF POP ASC)	0.066	0.065	0.062	0.063	0.064	0.064	0.064	0.064	0.064	0.063	
REPEAT (% OF POP DEC)	0.063	0.053	0.057	0.066	0.060	0.056	0.049	0.031	0.033	0.033	
T STATISTICS	-0.585	-0.362	0.145	-0.098	-0.264	-0.379	-0.752	-0.679	-0.679		

CUTTONELLE TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

SHARE OF TRANSACTIONS = 0.160
SHARE OF EXPOSURES = 0.204

SWITCHING TOWARD AND COUPON USAGE = 11
SWITCHING AWAY AND COUPON USAGE = 10
LOYAY TO TEST AND COUPON USAGE = 4
OTHER SWITCHING AND COUPON USAGE = 78
LOYAL TO OTHER AND COUPON USAGE = 18

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	4.	4.	1.	1.	0.	0.	0.	0.	1.	0.	11.
X -----> O	3.	2.	2.	2.	0.	0.	0.	0.	0.	1.	10.
X -----> X	2.	0.	0.	0.	2.	0.	0.	0.	0.	0.	4.
O -----> O	22.	18.	11.	10.	10.	1.	4.	1.	0.	1.	78.
O <----> O	6.	4.	1.	1.	1.	0.	1.	2.	1.	1.	18.
TOTAL	37.	28.	15.	14.	13.	1.	5.	3.	2.	3.	121.
TRIAL (COL/MCD REG)	0.125	0.154	0.077	0.083	0.000	0.000	0.000	0.000	0.500	0.000	
TRIAL (COL/MCD ASC)	0.125	0.138	0.127	0.120	0.106	0.105	0.100	0.097	0.105	0.103	
TRIAL (COL/MCD DEC)	0.103	0.093	0.061	0.056	0.042	0.077	0.083	0.143	0.250	0.000	
NET (COL/MCD REG)	0.571	0.667	0.333	0.333	0.000	0.000	0.000	0.000	1.000	0.000	
NET (COL/MCD ASC)	0.571	0.615	0.563	0.526	0.526	0.526	0.526	0.526	0.550	0.524	
NET (COL/MCD DEC)	0.524	0.500	0.375	0.400	0.500	0.500	0.500	0.500	0.500	0.000	
REPEAT (COL/MCD REG)	0.400	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.400	0.286	0.222	0.182	0.308	0.308	0.308	0.308	0.308	0.286	
REPEAT (COL/MCD DEC)	0.286	0.222	0.286	0.400	0.667	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.027	0.071	-0.067	-0.071	0.000	0.000	0.000	0.000	0.500	-0.333	
GAIN (% OF POP ASC)	0.027	0.046	0.025	0.011	0.009	0.009	0.009	0.009	0.017	0.008	
GAIN (% OF POP DEC)	0.008	0.000	-0.036	-0.024	0.000	0.000	0.000	0.000	0.000	-0.333	
TRIAL (% OF POP REG)	0.108	0.143	0.067	0.071	0.000	0.000	0.000	0.000	0.500	0.000	
TRIAL (% OF POP ASC)	0.108	0.123	0.112	0.106	0.093	0.093	0.088	0.086	0.093	0.091	
TRIAL (% OF POP DEC)	0.091	0.083	0.054	0.049	0.037	0.071	0.077	0.125	0.200	0.000	
NET (% OF POP REG)	0.162	0.143	0.067	0.071	0.154	0.000	0.000	0.000	0.500	0.000	
NET (% OF POP ASC)	0.162	0.154	0.137	0.128	0.131	0.130	0.124	0.121	0.127	0.124	
NET (% OF POP DEC)	0.124	0.107	0.089	0.098	0.111	0.071	0.077	0.125	0.200	0.000	
REPEAT (% OF POP REG)	0.054	0.000	0.000	0.000	0.154	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.054	0.031	0.025	0.021	0.037	0.037	0.035	0.034	0.034	0.033	
REPEAT (% OF POP DEC)	0.033	0.024	0.036	0.049	0.074	0.000	0.000	0.000	0.000	0.000	

COTTONELLE TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
0 -----> X	7.	3.	0.	0.	1.	0.	0.	0.	0.	0.	11.
X -----> 0	9.	0.	0.	0.	1.	0.	0.	0.	0.	0.	10.
X -----> X	3.	1.	0.	0.	0.	0.	0.	0.	0.	0.	4.
0 -----> 0	56.	14.	5.	2.	1.	0.	0.	0.	0.	0.	78.
0 <----> 0	13.	0.	4.	1.	0.	0.	0.	0.	0.	0.	18.
TOTAL	88.	18.	9.	3.	3.	0.	0.	0.	0.	0.	121.
TRIAL (COL/MCD REG)	0.092	0.176	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.092	0.108	0.098	0.095	0.103	0.103	0.103	0.103	0.103	0.103	
TRIAL (COL/MCD DEC)	0.103	0.129	0.071	0.200	0.500	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.571	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.438	1.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.438	0.526	0.526	0.526	0.524	0.524	0.524	0.524	0.524	0.524	
NET (COL/MCD DEC)	0.524	0.800	0.500	0.500	0.500	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.250	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.250	0.308	0.308	0.308	0.286	0.286	0.286	0.286	0.286	0.286	
REPEAT (COL/MCD DEC)	0.286	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.023	0.167	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.023	0.009	0.009	0.008	0.008	0.008	0.008	0.008	0.008	0.008	
GAIN (% OF POP DEC)	0.008	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.080	0.167	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.080	0.094	0.087	0.085	0.091	0.091	0.091	0.091	0.091	0.091	
TRIAL (% OF POP DEC)	0.091	0.121	0.067	0.167	0.333	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.710	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.114	0.222	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.114	0.132	0.122	0.119	0.124	0.124	0.124	0.124	0.124	0.124	
NET (% OF POP DEC)	0.124	0.152	0.067	0.167	0.333	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.563	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.034	0.056	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.034	0.038	0.035	0.034	0.033	0.033	0.033	0.033	0.033	0.033	
REPEAT (% OF POP DEC)	0.033	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.104	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

COTTONELLE TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	6.	2.	2.	0.	1.	0.	0.	0.	0.	0.	11.
X -----> O	3.	2.	2.	2.	0.	0.	0.	0.	1.	0.	10.
X -----> X	2.	0.	0.	1.	1.	0.	0.	0.	0.	0.	4.
O -----> O	29.	14.	12.	12.	8.	2.	0.	1.	0.	0.	78.
O <----> O	6.	4.	2.	1.	0.	3.	1.	1.	0.	0.	18.
TOTAL	46.	22.	18.	16.	10.	5.	1.	2.	1.	0.	121.
TRIAL (COL/MCD REG)	0.146	0.100	0.125	0.000	0.111	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.146	0.131	0.130	0.111	0.111	0.106	0.105	0.103	0.103	0.103	
TRIAL (COL/MCD DEC)	0.103	0.076	0.065	0.033	0.059	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.667	0.500	0.500	0.000	1.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.667	0.615	0.588	0.526	0.550	0.550	0.550	0.550	0.524	0.524	
NET (COL/MCD DEC)	0.524	0.417	0.375	0.250	0.500	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.400	0.000	0.000	0.333	1.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.400	0.286	0.222	0.250	0.308	0.308	0.308	0.308	0.286	0.286	
REPEAT (COL/MCD DEC)	0.286	0.222	0.286	0.400	0.500	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.065	0.000	0.000	-0.125	0.100	0.000	0.000	0.000	-1.000	0.000	
GAIN (% OF POP ASC)	0.065	0.044	0.035	0.010	0.018	0.017	0.017	0.017	0.008	0.008	
GAIN (% OF POP DEC)	0.008	-0.027	-0.038	-0.057	0.000	-0.111	-0.250	-0.333	-1.000	0.000	
TRIAL (% OF POP REG)	0.130	0.091	0.111	0.000	0.100	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.130	0.118	0.116	0.098	0.098	0.094	0.093	0.092	0.091	0.091	
TRIAL (% OF POP DEC)	0.091	0.067	0.057	0.029	0.053	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.174	0.091	0.111	0.063	0.200	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.174	0.147	0.140	0.127	0.134	0.128	0.127	0.125	0.124	0.124	
NET (% OF POP DEC)	0.124	0.093	0.094	0.086	0.105	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.043	0.000	0.000	0.063	0.100	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.043	0.029	0.023	0.029	0.036	0.034	0.034	0.033	0.033	0.033	
REPEAT (% OF POP DEC)	0.033	0.027	0.038	0.057	0.053	0.000	0.000	0.000	0.000	0.000	

COTTONELLE TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	0.	0.	1.	3.	5.	2.	0.	0.	0.	0.	11.
X -----> O	0.	1.	2.	2.	2.	3.	0.	0.	0.	0.	0.	10.
X -----> X	0.	1.	0.	1.	0.	2.	0.	0.	0.	0.	0.	4.
O -----> O	0.	7.	11.	12.	12.	28.	8.	0.	0.	0.	0.	78.
O <----> O	2.	0.	3.	2.	4.	7.	0.	0.	0.	0.	0.	18.
TOTAL	2.	9.	16.	18.	21.	45.	10.	0.	0.	0.	0.	121.
TRIAL (COL/MCD REG)	0.000	0.000	0.000	0.067	0.158	0.125	0.200	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.000	0.000	0.026	0.070	0.093	0.103	0.103	0.103	0.103	0.103	
TRIAL (COL/MCD DEC)	0.103	0.105	0.112	0.131	0.145	0.140	0.200	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.000	0.000	0.000	0.333	0.600	0.625	1.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.000	0.000	0.167	0.364	0.474	0.524	0.524	0.524	0.524	0.524	
NET (COL/MCD DEC)	0.524	0.524	0.550	0.611	0.667	0.700	1.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	0.500	0.000	0.333	0.000	0.400	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.500	0.250	0.286	0.222	0.286	0.286	0.286	0.286	0.286	0.286	
REPEAT (COL/MCD DEC)	0.286	0.286	0.250	0.300	0.286	0.400	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.000	-0.111	-0.125	-0.056	0.048	0.044	0.200	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	-0.091	-0.111	-0.089	-0.045	-0.009	0.008	0.008	0.008	0.008	0.008	
GAIN (% OF POP DEC)	0.008	0.008	0.018	0.043	0.066	0.073	0.200	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.000	0.000	0.056	0.143	0.111	0.200	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.000	0.022	0.061	0.081	0.091	0.091	0.091	0.091	0.091	
TRIAL (% OF POP DEC)	0.091	0.092	0.100	0.117	0.132	0.127	0.200	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.000	0.111	0.000	0.111	0.143	0.156	0.200	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.000	0.091	0.037	0.067	0.091	0.117	0.124	0.124	0.124	0.124	0.124	
NET (% OF POP DEC)	0.124	0.126	0.127	0.149	0.158	0.164	0.200	0.000	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.000	0.111	0.000	0.056	0.000	0.044	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.091	0.037	0.044	0.030	0.036	0.033	0.033	0.033	0.033	0.033	
REPEAT (% OF POP DEC)	0.033	0.034	0.027	0.032	0.026	0.036	0.000	0.000	0.000	0.000	0.000	

COTTONELLE TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	0.	0.	0.	1.	7.	2.	1.	0.	0.	0.	11.
X -----> O	0.	0.	0.	2.	1.	6.	1.	0.	0.	0.	0.	10.
X -----> X	0.	0.	1.	0.	0.	3.	0.	0.	0.	0.	0.	4.
O -----> O	0.	0.	4.	15.	7.	38.	11.	3.	0.	0.	0.	78.
O <----> O	0.	0.	2.	1.	4.	9.	1.	1.	0.	0.	0.	18.
TOTAL	0.	0.	7.	18.	13.	63.	15.	5.	0.	0.	0.	121.
TRIAL (COL/MCD REG)	0.000	0.000	0.000	0.000	0.083	0.130	0.143	0.200	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.000	0.000	0.000	0.029	0.091	0.098	0.103	0.103	0.103	0.103	
TRIAL (COL/MCD DEC)	0.103	0.103	0.103	0.109	0.129	0.137	0.158	0.200	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	1.781	1.706	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.000	0.000	0.000	0.000	0.500	0.538	0.667	1.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.000	0.000	0.000	0.250	0.471	0.500	0.524	0.524	0.524	0.524	
NET (COL/MCD DEC)	0.524	0.524	0.524	0.524	0.579	0.588	0.750	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	0.000	1.000	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.000	1.000	0.333	0.250	0.308	0.286	0.286	0.286	0.286	0.286	
REPEAT (COL/MCD DEC)	0.286	0.286	0.286	0.231	0.273	0.300	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	0.000	-0.111	0.000	0.016	0.067	0.200	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	0.000	-0.080	-0.053	-0.010	0.000	0.008	0.008	0.008	0.008	
GAIN (% OF POP DEC)	0.008	0.008	0.008	0.009	0.031	0.036	0.100	0.200	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.000	0.000	0.000	0.077	0.111	0.133	0.200	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.000	0.000	0.026	0.079	0.086	0.091	0.091	0.091	0.091	
TRIAL (% OF POP DEC)	0.091	0.091	0.091	0.096	0.115	0.120	0.150	0.200	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	1.775	1.672	1.006	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.000	0.000	0.143	0.000	0.077	0.159	0.133	0.200	0.000	0.000	0.000	
NET (% OF POP ASC)	0.000	0.000	0.143	0.040	0.053	0.119	0.121	0.124	0.124	0.124	0.124	
NET (% OF POP DEC)	0.124	0.124	0.124	0.123	0.146	0.157	0.150	0.200	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	1.430	1.611	0.387	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.000	0.000	0.143	0.000	0.000	0.048	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.000	0.143	0.040	0.026	0.040	0.034	0.033	0.033	0.033	0.033	
REPEAT (% OF POP DEC)	0.033	0.033	0.033	0.026	0.031	0.036	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	-0.218	0.281	-0.905	0.000	0.000	0.000	0.000		

COTTONELLE TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	7.	0.	0.	1.	0.	1.	0.	0.	0.	2.	11.
X -----> O	9.	0.	0.	1.	0.	0.	0.	0.	0.	0.	10.
X -----> X	3.	0.	1.	0.	0.	0.	0.	0.	0.	0.	4.
O -----> O	56.	1.	4.	3.	0.	6.	1.	0.	0.	7.	78.
O <----> O	13.	0.	3.	1.	0.	1.	0.	0.	0.	0.	18.
TOTAL	88.	1.	8.	6.	0.	8.	1.	0.	0.	9.	121.
TRIAL (COL/MCD REG)	0.092	0.000	0.000	0.200	0.000	0.125	0.000	0.000	0.000	0.222	
TRIAL (COL/MCD ASC)	0.092	0.091	0.083	0.090	0.090	0.093	0.092	0.092	0.092	0.103	
TRIAL (COL/MCD DEC)	0.103	0.129	0.133	0.174	0.167	0.167	0.200	0.222	0.222	0.222	
T STATISTICS	0.571	0.649	1.267	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.438	0.000	0.000	0.500	0.000	1.000	0.000	0.000	0.000	1.000	
NET (COL/MCD ASC)	0.438	0.438	0.438	0.444	0.444	0.474	0.474	0.474	0.474	0.524	
NET (COL/MCD DEC)	0.524	0.800	0.800	0.800	1.000	1.000	1.000	1.000	1.000	1.000	
REPEAT (COL/MCD REG)	0.250	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.250	0.250	0.308	0.286	0.286	0.286	0.286	0.286	0.286	0.286	
REPEAT (COL/MCD DEC)	0.286	0.500	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.023	0.000	0.000	0.000	0.000	0.125	0.000	0.000	0.000	0.222	
GAIN (% OF POP ASC)	-0.023	-0.022	-0.021	-0.019	-0.019	-0.009	-0.009	-0.009	-0.009	0.008	
GAIN (% OF POP DEC)	0.008	0.091	0.094	0.125	0.167	0.167	0.200	0.222	0.222	0.222	
TRIAL (% OF POP REG)	0.080	0.000	0.000	0.167	0.000	0.125	0.000	0.000	0.000	0.222	
TRIAL (% OF POP ASC)	0.080	0.079	0.072	0.078	0.078	0.081	0.080	0.080	0.080	0.091	
TRIAL (% OF POP DEC)	0.091	0.121	0.125	0.167	0.167	0.167	0.200	0.222	0.222	0.222	
T STATISTICS	0.710	0.782	1.442	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.114	0.000	0.125	0.167	0.000	0.125	0.000	0.000	0.000	0.222	
NET (% OF POP ASC)	0.114	0.112	0.113	0.117	0.117	0.117	0.116	0.116	0.116	0.124	
NET (% OF POP DEC)	0.124	0.152	0.156	0.167	0.167	0.167	0.200	0.222	0.222	0.222	
T STATISTICS	0.563	0.646	0.709	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.034	0.000	0.125	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.034	0.034	0.041	0.039	0.039	0.036	0.036	0.036	0.036	0.033	
REPEAT (% OF POP DEC)	0.033	0.030	0.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.104	-0.067	-1.012	0.000	0.000	0.000	0.000	0.000	0.000		

COTTONELLE TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

SHARE OF TRANSACTIONS = 0.160
SHARE OF EXPOSURES = 0.204

SWITCHING TOWARD AND COUPON USAGE = 0
SWITCHING AWAY AND COUPON USAGE = 0
LOYAY TO TEST AND COUPON USAGE = 0
OTHER SWITCHING AND COUPON USAGE = 0
LOYAL TO OTHER AND COUPON USAGE = 0

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	17.	14.	5.	8.	3.	2.	1.	1.	0.	2.	53.
X -----> O	23.	14.	7.	3.	4.	1.	1.	0.	0.	1.	54.
X -----> X	21.	3.	4.	6.	2.	1.	0.	0.	0.	1.	38.
O -----> O	142.	80.	44.	29.	19.	19.	7.	7.	4.	19.	370.
O <----> O	16.	4.	2.	5.	3.	0.	0.	2.	1.	1.	34.
TOTAL	219.	115.	62.	51.	31.	23.	9.	10.	5.	24.	549.
TRIAL (COL/MCD REG)	0.097	0.143	0.098	0.190	0.120	0.095	0.125	0.100	0.000	0.091	
TRIAL (COL/MCD ASC)	0.097	0.114	0.111	0.120	0.120	0.119	0.119	0.119	0.117	0.116	
TRIAL (COL/MCD DEC)	0.116	0.128	0.120	0.128	0.099	0.091	0.089	0.081	0.074	0.091	
NET (COL/MCD REG)	0.425	0.500	0.417	0.727	0.429	0.667	0.500	1.000	0.000	0.667	
NET (COL/MCD ASC)	0.425	0.456	0.450	0.484	0.480	0.485	0.485	0.490	0.490	0.495	
NET (COL/MCD DEC)	0.495	0.537	0.564	0.630	0.563	0.667	0.667	0.750	0.667	0.667	
REPEAT (COL/MCD REG)	0.477	0.176	0.364	0.667	0.333	0.500	0.000	0.000	0.000	0.500	
REPEAT (COL/MCD ASC)	0.477	0.393	0.389	0.420	0.414	0.416	0.411	0.411	0.411	0.413	
REPEAT (COL/MCD DEC)	0.413	0.354	0.452	0.500	0.364	0.400	0.333	0.500	0.500	0.500	
GAIN (% OF POP REG)	-0.027	0.000	-0.032	0.098	-0.032	0.043	0.000	0.100	0.000	0.042	
GAIN (% OF POP ASC)	-0.027	-0.018	-0.020	-0.007	-0.008	-0.006	-0.006	-0.004	-0.004	-0.002	
GAIN (% OF POP DEC)	-0.002	0.015	0.023	0.046	0.020	0.042	0.042	0.051	0.034	0.042	
TRIAL (% OF POP REG)	0.078	0.122	0.081	0.157	0.097	0.087	0.111	0.100	0.000	0.083	
TRIAL (% OF POP ASC)	0.078	0.093	0.091	0.098	0.098	0.098	0.098	0.098	0.097	0.097	
TRIAL (% OF POP DEC)	0.097	0.109	0.102	0.111	0.088	0.085	0.083	0.077	0.069	0.083	
NET (% OF POP REG)	0.174	0.148	0.145	0.275	0.161	0.130	0.111	0.100	0.000	0.125	
NET (% OF POP ASC)	0.174	0.165	0.162	0.174	0.174	0.172	0.171	0.169	0.168	0.166	
NET (% OF POP DEC)	0.166	0.161	0.167	0.176	0.127	0.113	0.104	0.103	0.103	0.125	
REPEAT (% OF POP REG)	0.096	0.026	0.065	0.118	0.065	0.043	0.000	0.000	0.000	0.042	
REPEAT (% OF POP ASC)	0.096	0.072	0.071	0.076	0.075	0.074	0.073	0.071	0.070	0.069	
REPEAT (% OF POP DEC)	0.069	0.052	0.065	0.065	0.039	0.028	0.021	0.026	0.034	0.042	

COTTONELLE TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	34.	14.	1.	2.	1.	0.	1.	0.	0.	0.	53.
X -----> O	47.	5.	2.	0.	0.	0.	0.	0.	0.	0.	54.
X -----> X	30.	3.	4.	0.	0.	1.	0.	0.	0.	0.	38.
O -----> O	275.	57.	19.	16.	2.	1.	0.	0.	0.	0.	370.
O <----> O	25.	8.	1.	0.	0.	0.	0.	0.	0.	0.	34.
TOTAL	411.	87.	27.	18.	3.	2.	1.	0.	0.	0.	549.
TRIAL (COL/MCD REG)	0.102	0.177	0.048	0.111	0.333	0.000	1.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.102	0.116	0.113	0.113	0.114	0.114	0.116	0.116	0.116	0.116	
TRIAL (COL/MCD DEC)	0.116	0.154	0.114	0.174	0.400	0.500	1.000	0.000	0.000	0.000	
T STATISTICS	1.560	-0.051	0.891	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.420	0.737	0.333	1.000	1.000	0.000	1.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.420	0.480	0.476	0.486	0.491	0.491	0.495	0.495	0.495	0.495	
NET (COL/MCD DEC)	0.495	0.731	0.714	1.000	1.000	1.000	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.390	0.375	0.667	0.000	0.000	1.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.390	0.388	0.407	0.407	0.407	0.413	0.413	0.413	0.413	0.413	
REPEAT (COL/MCD DEC)	0.413	0.533	0.714	1.000	1.000	1.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.032	0.103	-0.037	0.111	0.333	0.000	1.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.032	-0.008	-0.010	-0.006	-0.004	-0.004	-0.002	-0.002	-0.002	-0.002	
GAIN (% OF POP DEC)	-0.002	0.087	0.059	0.167	0.333	0.333	1.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.083	0.161	0.037	0.111	0.333	0.000	1.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.083	0.096	0.093	0.094	0.095	0.095	0.097	0.097	0.097	0.097	
TRIAL (% OF POP DEC)	0.097	0.138	0.098	0.167	0.333	0.333	1.000	0.000	0.000	0.000	
T STATISTICS	1.891	0.038	1.190	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.156	0.195	0.185	0.111	0.333	0.500	1.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.156	0.163	0.164	0.162	0.163	0.164	0.166	0.166	0.166	0.166	
NET (% OF POP DEC)	0.166	0.196	0.196	0.208	0.500	0.667	1.000	0.000	0.000	0.000	
T STATISTICS	1.092	0.611	0.574	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.073	0.034	0.148	0.000	0.000	0.500	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.073	0.066	0.070	0.068	0.068	0.069	0.069	0.069	0.069	0.069	
REPEAT (% OF POP DEC)	0.069	0.058	0.098	0.042	0.167	0.333	0.000	0.000	0.000	0.000	
T STATISTICS	-0.602	0.851	-0.544	0.000	0.000	0.000	0.000	0.000	0.000		

COTTONELLE TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	21.	11.	13.	2.	3.	1.	1.	1.	0.	0.	53.
X -----> O	24.	13.	8.	5.	3.	0.	0.	0.	0.	1.	54.
X -----> X	22.	3.	8.	4.	0.	0.	0.	0.	1.	0.	38.
O -----> O	157.	83.	48.	26.	21.	8.	9.	6.	4.	8.	370.
O <----> O	16.	6.	3.	3.	2.	1.	0.	2.	0.	1.	34.
TOTAL	240.	116.	80.	40.	29.	10.	10.	9.	5.	10.	549.
TRIAL (COL/MCD REG)	0.108	0.110	0.203	0.065	0.115	0.100	0.100	0.111	0.000	0.000	
TRIAL (COL/MCD ASC)	0.108	0.109	0.126	0.121	0.120	0.120	0.120	0.119	0.118	0.116	
TRIAL (COL/MCD DEC)	0.116	0.122	0.129	0.081	0.088	0.071	0.063	0.045	0.000	0.000	
NET (COL/MCD REG)	0.467	0.458	0.619	0.286	0.500	1.000	1.000	1.000	0.000	0.000	
NET (COL/MCD ASC)	0.467	0.464	0.500	0.485	0.485	0.490	0.495	0.500	0.500	0.495	
NET (COL/MCD DEC)	0.495	0.516	0.553	0.471	0.600	0.750	0.667	0.500	0.000	0.000	
REPEAT (COL/MCD REG)	0.478	0.188	0.500	0.444	0.000	0.000	0.000	0.000	1.000	0.000	
REPEAT (COL/MCD ASC)	0.478	0.403	0.423	0.425	0.411	0.411	0.411	0.411	0.418	0.413	
REPEAT (COL/MCD DEC)	0.413	0.348	0.433	0.357	0.200	0.500	0.500	0.500	0.500	0.000	
GAIN (% OF POP REG)	-0.012	-0.017	0.063	-0.075	0.000	0.100	0.100	0.111	0.000	-0.100	
GAIN (% OF POP ASC)	-0.012	-0.014	0.000	-0.006	-0.006	-0.004	-0.002	0.000	0.000	-0.002	
GAIN (% OF POP DEC)	-0.002	0.006	0.021	-0.009	0.027	0.045	0.029	0.000	-0.067	-0.100	
TRIAL (% OF POP REG)	0.087	0.095	0.162	0.050	0.103	0.100	0.100	0.111	0.000	0.000	
TRIAL (% OF POP ASC)	0.087	0.090	0.103	0.099	0.099	0.099	0.099	0.099	0.098	0.097	
TRIAL (% OF POP DEC)	0.097	0.104	0.109	0.071	0.082	0.068	0.059	0.042	0.000	0.000	
NET (% OF POP REG)	0.179	0.121	0.262	0.150	0.103	0.100	0.100	0.111	0.200	0.000	
NET (% OF POP ASC)	0.179	0.160	0.179	0.176	0.172	0.171	0.170	0.169	0.169	0.166	
NET (% OF POP DEC)	0.166	0.155	0.176	0.115	0.096	0.091	0.088	0.083	0.067	0.000	
REPEAT (% OF POP REG)	0.092	0.026	0.100	0.100	0.000	0.000	0.000	0.000	0.200	0.000	
REPEAT (% OF POP ASC)	0.092	0.070	0.076	0.078	0.073	0.072	0.070	0.069	0.071	0.069	
REPEAT (% OF POP DEC)	0.069	0.052	0.067	0.044	0.014	0.023	0.029	0.042	0.067	0.000	

COTTCNELLE TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
0 -----> X	0.	4.	2.	4.	17.	20.	6.	0.	0.	0.	0.	53.
X -----> 0	1.	2.	2.	10.	15.	23.	1.	0.	0.	0.	0.	54.
X -----> X	0.	0.	4.	4.	5.	23.	2.	0.	0.	0.	0.	38.
0 -----> 0	24.	11.	29.	42.	84.	157.	20.	2.	1.	0.	0.	370.
0 <----> 0	3.	2.	3.	1.	7.	18.	0.	0.	0.	0.	0.	34.
TOTAL	28.	19.	40.	61.	128.	241.	29.	2.	1.	0.	0.	549.
TRIAL (COL/MCD REG)	0.000	0.235	0.059	0.085	0.157	0.103	0.231	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.091	0.077	0.080	0.116	0.110	0.117	0.116	0.116	0.116	0.116	
TRIAL (COL/MCD DEC)	0.116	0.123	0.119	0.124	0.130	0.116	0.207	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.000	0.667	0.500	0.286	0.531	0.465	0.857	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.571	0.545	0.400	0.474	0.470	0.495	0.495	0.495	0.495	0.495	
NET (COL/MCD DEC)	0.495	0.500	0.490	0.490	0.524	0.520	0.857	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	0.000	0.667	0.286	0.250	0.500	0.667	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.000	0.444	0.348	0.302	0.404	0.413	0.413	0.413	0.413	0.413	
REPEAT (COL/MCD DEC)	0.413	0.418	0.427	0.410	0.435	0.510	0.667	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	-0.036	0.105	0.000	-0.098	0.016	-0.012	0.172	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.036	0.021	0.011	-0.034	-0.011	-0.012	-0.002	-0.002	-0.002	-0.002	-0.002	
GAIN (% OF POP DEC)	-0.002	0.000	-0.004	-0.004	0.010	0.007	0.156	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.211	0.050	0.066	0.133	0.083	0.207	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.085	0.069	0.068	0.098	0.091	0.097	0.097	0.097	0.097	0.097	
TRIAL (% OF POP DEC)	0.097	0.102	0.098	0.102	0.107	0.095	0.188	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.000	0.211	0.150	0.131	0.172	0.178	0.276	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.000	0.085	0.115	0.122	0.145	0.161	0.167	0.166	0.166	0.166	0.166	
NET (% OF POP DEC)	0.166	0.175	0.173	0.175	0.182	0.187	0.250	0.000	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.000	0.000	0.100	0.066	0.039	0.095	0.069	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.000	0.046	0.054	0.047	0.070	0.070	0.069	0.069	0.069	0.069	
REPEAT (% OF POP DEC)	0.069	0.073	0.076	0.074	0.075	0.092	0.063	0.000	0.000	0.000	0.000	

COTTONELLE TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	0.	2.	4.	5.	32.	7.	2.	0.	1.	0.	53.
X -----> O	0.	0.	2.	6.	6.	39.	1.	0.	0.	0.	0.	54.
X -----> X	0.	0.	0.	2.	7.	24.	2.	3.	0.	0.	0.	38.
O -----> O	3.	1.	14.	42.	51.	216.	36.	5.	2.	0.	0.	370.
O <----> O	1.	0.	0.	3.	4.	22.	4.	0.	0.	0.	0.	34.
TOTAL	4.	1.	18.	57.	73.	333.	50.	10.	2.	1.	0.	549.
TRIAL (COL/MCD REG)	0.000	0.000	0.125	0.082	0.083	0.119	0.149	0.286	0.000	1.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.000	0.095	0.086	0.085	0.107	0.112	0.115	0.114	0.116	0.116	
TRIAL (COL/MCD DEC)	0.116	0.117	0.117	0.117	0.121	0.128	0.175	0.300	0.333	1.000	0.000	
T STATISTICS	0.000	0.000	0.304	0.859	1.320	1.499	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.000	0.000	0.500	0.400	0.455	0.451	0.875	1.000	0.000	1.000	0.000	
NET (COL/MCD ASC)	0.000	0.000	0.500	0.429	0.440	0.448	0.481	0.491	0.491	0.495	0.495	
NET (COL/MCD DEC)	0.495	0.495	0.495	0.495	0.505	0.512	0.909	1.000	1.000	1.000	0.000	
REPEAT (COL/MCD REG)	0.000	0.000	0.000	0.250	0.538	0.381	0.667	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.000	0.000	0.200	0.391	0.384	0.393	0.413	0.413	0.413	0.413	
REPEAT (COL/MCD DEC)	0.413	0.413	0.413	0.422	0.439	0.420	0.833	1.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	0.000	-0.035	-0.014	-0.021	0.120	0.200	0.000	1.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	0.000	-0.025	-0.020	-0.021	-0.007	-0.004	-0.004	-0.002	-0.002	
GAIN (% OF POP DEC)	-0.002	-0.002	-0.002	-0.002	0.002	0.005	0.143	0.231	0.333	1.000	0.000	
TRIAL (% OF POP REG)	0.000	0.000	0.111	0.070	0.068	0.096	0.140	0.200	0.000	1.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.087	0.075	0.072	0.088	0.093	0.095	0.095	0.097	0.097	
TRIAL (% OF POP DEC)	0.097	0.097	0.097	0.097	0.100	0.106	0.159	0.231	0.333	1.000	0.000	
T STATISTICS	0.000	0.000	0.159	0.706	1.215	1.765	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.000	0.000	0.111	0.105	0.164	0.168	0.180	0.500	0.000	1.000	0.000	
NET (% OF POP ASC)	0.000	0.000	0.087	0.100	0.131	0.156	0.159	0.165	0.164	0.166	0.166	
NET (% OF POP DEC)	0.166	0.167	0.167	0.169	0.177	0.179	0.238	0.462	0.333	1.000	0.000	
T STATISTICS	0.000	0.000	1.038	1.711	1.372	1.630	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.000	0.000	0.000	0.035	0.096	0.072	0.040	0.300	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.000	0.000	0.025	0.059	0.068	0.065	0.070	0.069	0.069	0.069	
REPEAT (% OF POP DEC)	0.069	0.070	0.070	0.072	0.077	0.073	0.079	0.231	0.060	0.000	0.000	
T STATISTICS	0.000	0.000	1.336	1.686	0.596	0.335	0.000	0.000	0.000	0.000		

COTTONELLE TISSUE 7-DAY WINDOW 60% FREQUENCY ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	34.	1.	1.	8.	0.	4.	1.	0.	0.	4.	53.
X -----> O	48.	0.	2.	2.	1.	0.	0.	0.	0.	1.	54.
X -----> X	30.	0.	0.	3.	1.	2.	1.	0.	0.	1.	38.
O -----> O	275.	7.	24.	17.	9.	15.	6.	2.	0.	15.	370.
O <----> O	26.	1.	2.	3.	0.	2.	0.	0.	0.	0.	34.
TOTAL	413.	9.	29.	33.	11.	23.	8.	2.	0.	21.	549.
TRIAL (COL/MCD REG)	0.101	0.111	0.037	0.286	0.000	0.190	0.143	0.000	0.000	0.211	
TRIAL (COL/MCD ASC)	0.101	0.102	0.097	0.110	0.108	0.112	0.112	0.112	0.112	0.116	
TRIAL (COL/MCD DEC)	0.116	0.156	0.159	0.198	0.155	0.184	0.179	0.190	0.211	0.211	
T STATISTICS	1.602	1.658	2.626	0.998	1.566	1.068	1.092	0.000	0.000		
NET (COL/MCD REG)	0.415	1.000	0.333	0.800	0.000	1.000	1.000	0.000	0.000	0.800	
NET (COL/MCD ASC)	0.415	0.422	0.419	0.458	0.454	0.475	0.480	0.480	0.480	0.495	
NET (COL/MCD DEC)	0.495	0.760	0.750	0.810	0.818	0.900	0.833	0.800	0.800	0.800	
REPEAT (COL/MCD REG)	0.385	0.000	0.000	0.600	0.500	1.000	1.000	0.000	0.000	0.500	
REPEAT (COL/MCD ASC)	0.385	0.385	0.375	0.388	0.391	0.404	0.411	0.411	0.411	0.413	
REPEAT (COL/MCD DEC)	0.413	0.571	0.571	0.667	0.714	0.800	0.667	0.500	0.500	0.500	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.034	0.111	-0.034	0.182	-0.091	0.174	0.125	0.000	0.000	0.143	
GAIN (% OF POP ASC)	-0.034	-0.031	-0.031	-0.017	-0.018	-0.010	-0.008	-0.008	-0.008	-0.002	
GAIN (% OF POP DEC)	-0.002	0.096	0.094	0.133	0.108	0.148	0.129	0.130	0.143	0.143	
TRIAL (% OF POP REG)	0.082	0.111	0.034	0.242	0.000	0.174	0.125	0.000	0.000	0.190	
TRIAL (% OF POP ASC)	0.082	0.083	0.080	0.091	0.089	0.093	0.093	0.093	0.093	0.097	
TRIAL (% OF POP DEC)	0.097	0.140	0.142	0.173	0.138	0.167	0.161	0.174	0.190	0.190	
T STATISTICS	1.965	1.967	2.845	1.219	1.838	1.257	1.284	1.486	1.486		
NET (% OF POP REG)	0.155	0.111	0.034	0.333	0.091	0.261	0.250	0.000	0.000	0.238	
NET (% OF POP ASC)	0.155	0.154	0.146	0.159	0.158	0.162	0.163	0.163	0.163	0.166	
NET (% OF POP DEC)	0.166	0.199	0.205	0.255	0.215	0.241	0.226	0.217	0.238	0.238	
T STATISTICS	1.185	1.347	2.624	1.146	1.561	0.926	0.680	0.909	0.909		
REPEAT (% OF POP REG)	0.073	0.000	0.000	0.091	0.091	0.087	0.125	0.000	0.000	0.048	
REPEAT (% OF POP ASC)	0.073	0.071	0.067	0.068	0.069	0.069	0.070	0.070	0.070	0.069	
REPEAT (% OF POP DEC)	0.069	0.059	0.063	0.082	0.077	0.074	0.065	0.043	0.048	0.048	
T STATISTICS	-0.551	-0.315	0.534	0.261	0.148	-0.106	-0.497	-0.398	-0.398		

AVERAGE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

SWITCHING TOWARD AND COUPON USAGE = 10
SWITCHING AWAY AND COUPON USAGE = 8
LOYAY TO TEST AND COUPON USAGE = 17
OTHER SWITCHING AND COUPON USAGE = 91
LOYAL TO OTHER AND COUPON USAGE = 22

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	31.	22.	6.	9.	3.	1.	0.	0.	0.	0.	72.
X -----> O	25.	14.	16.	7.	2.	2.	0.	1.	1.	0.	68.
X -----> X	38.	21.	14.	13.	4.	3.	5.	3.	0.	1.	102.
O -----> O	334.	211.	120.	77.	40.	15.	3.	12.	3.	7.	822.
O <----> O	52.	28.	8.	14.	3.	3.	12.	0.	0.	0.	120.
TOTAL	480.	296.	164.	120.	52.	24.	20.	16.	4.	8.	1184.
TRIAL (COL/MCD REG)	0.074	0.084	0.045	0.090	0.065	0.053	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.074	0.078	0.073	0.075	0.074	0.074	0.073	0.072	0.071	0.071	
TRIAL (COL/MCD DEC)	0.071	0.069	0.057	0.064	0.039	0.018	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.554	0.611	0.273	0.563	0.600	0.333	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.554	0.576	0.518	0.523	0.526	0.522	0.522	0.518	0.514	0.514	
NET (COL/MCD DEC)	0.514	0.488	0.396	0.500	0.400	0.200	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.603	0.600	0.467	0.650	0.667	0.600	1.000	0.750	0.000	1.000	
REPEAT (COL/MCD ASC)	0.603	0.602	0.570	0.581	0.584	0.585	0.598	0.601	0.598	0.600	
REPEAT (COL/MCD DEC)	0.600	0.598	0.597	0.690	0.727	0.750	0.818	0.667	0.500	1.000	
GAIN (% OF POP REG)	0.012	0.027	-0.061	0.017	0.019	-0.042	0.000	-0.063	-0.250	0.000	
GAIN (% OF POP ASC)	0.012	0.018	0.004	0.006	0.006	0.005	0.005	0.004	0.003	0.003	
GAIN (% OF POP DEC)	0.003	-0.003	-0.025	0.000	-0.016	-0.042	-0.042	-0.071	-0.083	0.000	
TRIAL (% OF POP REG)	0.065	0.074	0.037	0.075	0.058	0.042	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.065	0.068	0.063	0.064	0.064	0.063	0.062	0.061	0.061	0.061	
TRIAL (% OF POP DEC)	0.061	0.058	0.047	0.053	0.032	0.014	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.144	0.145	0.122	0.183	0.135	0.167	0.250	0.188	0.000	0.125	
NET (% OF POP ASC)	0.144	0.144	0.140	0.145	0.145	0.145	0.147	0.148	0.147	0.147	
NET (% OF POP DEC)	0.147	0.149	0.152	0.172	0.161	0.181	0.188	0.143	0.083	0.125	
REPEAT (% OF POP REG)	0.079	0.071	0.085	0.108	0.077	0.125	0.250	0.188	0.000	0.125	
REPEAT (% OF POP ASC)	0.079	0.076	0.078	0.081	0.081	0.082	0.085	0.086	0.086	0.086	
REPEAT (% OF POP DEC)	0.086	0.091	0.105	0.119	0.129	0.167	0.188	0.143	0.083	0.125	

AVERAGE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	55.	16.	1.	0.	0.	0.	0.	0.	0.	0.	72.
X -----> O	52.	10.	4.	2.	0.	0.	0.	0.	0.	0.	68.
X -----> X	81.	12.	7.	1.	0.	0.	1.	0.	0.	0.	102.
O -----> O	644.	114.	34.	18.	9.	1.	1.	0.	1.	0.	822.
O <----> O	98.	11.	4.	3.	2.	2.	0.	0.	0.	0.	120.
TOTAL	930.	163.	50.	24.	11.	3.	2.	0.	1.	0.	1184.
TRIAL (COL/MCD REG)	0.069	0.113	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.069	0.C76	0.074	0.072	0.071	0.071	0.071	0.071	0.071	0.071	
TRIAL (COL/MCD DEC)	0.071	0.078	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.475	-2.042	-1.713	0.000	0.000	0.000	0.000	0.000	0.000		
NET (CCL/MCD REG)	0.514	0.615	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (CCL/MCD ASC)	0.514	0.534	0.522	0.514	0.514	0.514	0.514	0.514	0.514	0.514	
NET (COL/MCD DEC)	0.514	0.515	0.143	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.609	0.545	0.636	0.333	0.000	0.000	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.609	0.600	0.602	0.598	0.598	0.598	0.600	0.600	0.600	0.600	
REPEAT (COL/MCD DEC)	0.600	0.568	0.600	0.500	1.000	1.000	1.000	0.000	0.000	0.000	
T STATISTICS	-0.455	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.003	0.037	-0.060	-0.083	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.003	0.CC8	0.005	0.003	0.003	0.003	0.003	0.003	0.003	0.003	
GAIN (% OF POP DEC)	0.003	0.004	-0.055	-0.049	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.059	0.098	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.059	0.065	0.063	0.062	0.061	0.061	0.061	0.061	0.061	0.061	
TRIAL (% OF POP DEC)	0.061	0.067	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.460	-2.070	-1.658	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.146	0.172	0.160	0.042	0.000	0.000	0.500	0.000	0.000	0.000	
NET (% OF POP ASC)	0.146	0.150	0.150	0.148	0.147	0.146	0.147	0.147	0.147	0.147	
NET (% OF PGP DEC)	0.147	0.150	0.110	0.049	0.059	0.167	0.333	0.000	0.000	0.000	
T STATISTICS	0.134	-1.039	-1.807	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.087	0.074	0.140	0.042	0.000	0.000	0.500	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.087	0.085	0.087	0.087	0.086	0.086	0.086	0.086	0.086	0.086	
REPEAT (% OF POP DEC)	0.086	0.083	0.099	0.049	0.059	0.167	0.333	0.000	0.000	0.000	
T STATISTICS	-0.222	0.451	-0.868	0.000	0.000	0.000	0.000	0.000	0.000		

AVERAGE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	39.	16.	10.	4.	3.	0.	0.	0.	0.	0.	72.
X -----> O	32.	16.	9.	5.	4.	1.	1.	0.	0.	0.	68.
X -----> X	42.	25.	13.	9.	5.	4.	2.	1.	0.	1.	102.
O -----> O	423.	192.	105.	51.	29.	5.	3.	8.	3.	3.	822.
O <----> O	60.	30.	7.	11.	3.	4.	5.	0.	0.	0.	120.
TOTAL	596.	279.	144.	80.	44.	14.	11.	9.	3.	4.	1184.
TRIAL (COL/MCD REG)	0.075	0.067	0.082	0.061	0.086	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.075	0.072	0.074	0.073	0.073	0.073	0.072	0.071	0.071	0.071	
TRIAL (COL/MCD DEC)	0.071	0.067	0.067	0.053	0.045	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.549	0.500	0.526	0.444	0.429	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.549	0.534	0.533	0.527	0.522	0.518	0.514	0.514	0.514	0.514	
NET (COL/MCD DEC)	0.514	0.478	0.459	0.389	0.333	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.568	0.610	0.591	0.643	0.556	0.800	0.667	1.000	0.000	1.000	
REPEAT (COL/MCD ASC)	0.568	0.583	0.584	0.589	0.587	0.594	0.595	0.598	0.598	0.600	
REPEAT (COL/MCD DEC)	0.600	0.625	0.636	0.667	0.684	0.800	0.800	1.000	1.000	1.000	
GAIN (% OF POP REG)	0.012	0.000	0.007	-0.012	-0.023	-0.071	-0.091	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.012	0.008	0.008	0.006	0.005	0.004	0.003	0.003	0.003	0.003	
GAIN (% OF POP DEC)	0.003	-0.005	-0.010	-0.024	-0.035	-0.049	-0.037	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.065	0.057	0.069	0.050	0.068	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.065	0.063	0.064	0.063	0.063	0.062	0.062	0.061	0.061	0.061	
TRIAL (% OF POP DEC)	0.061	0.056	0.055	0.042	0.035	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.136	0.147	0.160	0.162	0.182	0.286	0.182	0.111	0.000	0.250	
NET (% OF POP ASC)	0.136	0.139	0.142	0.144	0.145	0.147	0.147	0.147	0.147	0.147	
NET (% OF POP DEC)	0.147	0.158	0.168	0.176	0.188	0.195	0.148	0.125	0.143	0.250	
REPEAT (% OF POP REG)	0.070	0.090	0.090	0.112	0.114	0.286	0.182	0.111	0.000	0.250	
REPEAT (% OF POP ASC)	0.070	0.077	0.079	0.081	0.082	0.085	0.086	0.086	0.086	0.086	
REPEAT (% OF POP DEC)	0.086	0.102	0.113	0.133	0.153	0.195	0.148	0.125	0.143	0.250	

AVERAGE REGULAR COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
0 -----> X	0.	2.	4.	6.	19.	32.	9.	0.	0.	0.	0.	72.
X -----> 0	1.	3.	6.	8.	13.	30.	3.	3.	1.	0.	0.	68.
X -----> X	5.	5.	9.	11.	25.	41.	2.	2.	1.	0.	1.	102.
0 -----> 0	20.	22.	48.	82.	178.	365.	70.	20.	9.	6.	2.	822.
0 <----> 0	7.	4.	10.	5.	24.	56.	7.	4.	1.	1.	1.	120.
TOTAL	33.	36.	77.	112.	259.	524.	91.	29.	12.	7.	4.	1184.
TRIAL (COL/MCD REG)	0.000	0.071	0.065	0.065	0.086	0.071	0.105	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.036	0.051	0.057	0.072	0.071	0.074	0.072	0.072	0.071	0.071	
TRIAL (CCL/MCD DEC)	0.071	0.073	0.073	0.074	0.075	0.070	0.069	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.000	0.400	0.400	0.429	0.594	0.516	0.750	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.333	0.375	0.400	0.500	0.508	0.529	0.518	0.514	0.514	0.514	
NET (COL/MCD DEC)	0.514	0.518	0.522	0.532	0.545	0.526	0.563	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.833	0.625	0.600	0.579	0.658	0.577	0.400	0.400	0.500	0.000	1.000	
REPEAT (COL/MCD ASC)	0.833	0.714	0.655	0.625	0.640	0.611	0.605	0.599	0.598	0.598	0.600	
REPEAT (COL/MCD DEC)	0.600	0.591	0.590	0.589	0.590	0.560	0.462	0.500	0.667	1.000	1.000	
GAIN (% OF POP REG)	-0.030	-0.028	-0.026	-0.018	0.023	0.004	0.066	-0.103	-0.083	0.000	0.000	
GAIN (% OF POP ASC)	-0.030	-0.029	-0.027	-0.023	0.000	0.002	0.007	0.004	0.003	0.003	0.003	
GAIN (% OF POP DEC)	0.003	0.004	0.005	0.008	0.011	0.006	0.014	-0.077	-0.043	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.056	0.052	0.054	0.073	0.061	0.099	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.029	0.041	0.047	0.060	0.061	0.064	0.062	0.061	0.061	0.061	
TRIAL (% OF POP DEC)	0.061	0.063	0.063	0.064	0.065	0.061	0.063	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.152	0.194	0.169	0.152	0.170	0.139	0.121	0.069	0.083	0.000	0.250	
NET (% OF POP ASC)	0.152	0.174	0.171	0.163	0.166	0.153	0.150	0.148	0.147	0.147	0.147	
NET (% OF POP DEC)	0.147	0.147	0.145	0.144	0.143	0.132	0.105	0.077	0.087	0.091	0.250	
REPEAT (% CF POP REG)	0.152	0.139	0.117	0.098	0.097	0.078	0.022	0.069	0.083	0.000	0.250	
REPEAT (% OF POP ASC)	0.152	0.145	0.130	0.116	0.106	0.092	0.087	0.086	0.086	0.086	0.086	
REPEAT (% OF POP DEC)	0.086	0.084	0.083	0.080	0.078	0.070	0.042	0.077	0.087	0.091	0.250	

AVERAGE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	2.	2.	5.	8.	44.	10.	1.	0.	0.	0.	72.
X -----> O	0.	1.	6.	7.	9.	32.	9.	3.	1.	0.	0.	68.
X -----> X	3.	2.	8.	12.	16.	55.	1.	3.	1.	0.	1.	102.
O -----> O	8.	15.	30.	78.	93.	461.	91.	25.	13.	6.	2.	822.
O <----> O	3.	4.	8.	7.	9.	73.	8.	3.	2.	1.	2.	120.
TOTAL	14.	24.	54.	109.	135.	665.	119.	35.	17.	7.	5.	1184.
TRIAL (COL/MCD REG)	0.000	0.095	0.050	0.056	0.073	0.076	0.092	0.034	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.063	0.056	0.056	0.063	0.072	0.074	0.073	0.072	0.071	0.071	
TRIAL (COL/MCD DEC)	0.071	0.072	0.071	0.072	0.074	0.074	0.067	0.018	0.000	0.000	0.000	
T STATISTICS	0.000	0.190	0.530	0.835	0.638	-0.212	-1.511	-1.314	0.000	0.000		
NET (COL/MCD REG)	0.000	0.667	0.250	0.417	0.471	0.579	0.526	0.250	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.667	0.364	0.391	0.425	0.526	0.526	0.518	0.514	0.514	0.514	
NET (COL/MCD DEC)	0.514	0.514	0.511	0.527	0.538	0.550	0.458	0.200	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	0.667	0.571	0.632	0.640	0.632	0.100	0.500	0.500	0.000	1.000	
REPEAT (COL/MCD ASC)	1.000	0.833	0.650	0.641	0.641	0.636	0.602	0.599	0.598	0.598	0.600	
REPEAT (COL/MCD DEC)	0.600	0.593	0.591	0.593	0.588	0.575	0.316	0.556	0.667	1.000	1.000	
T STATISTICS	0.000	0.000	0.000	-0.497	-0.679	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.042	-0.074	-0.018	-0.007	0.018	0.008	-0.057	-0.059	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.026	-0.033	-0.025	-0.018	0.006	0.006	0.004	0.003	0.003	0.003	
GAIN (% OF POP DEC)	0.003	0.003	0.003	0.006	0.009	0.012	-0.011	-0.047	-0.034	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.083	0.037	0.046	0.059	0.066	0.084	0.029	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.053	0.043	0.045	0.051	0.061	0.063	0.062	0.061	0.061	0.061	
TRIAL (% OF POP DEC)	0.061	0.062	0.061	0.062	0.064	0.065	0.060	0.016	0.000	0.000	0.000	
T STATISTICS	0.000	0.214	0.724	1.043	0.925	-0.042	-1.469	-1.209	0.000	0.000		
NET (% CF POP REG)	0.214	0.167	0.185	0.156	0.178	0.149	0.092	0.114	0.059	0.000	0.200	
NET (% OF POP ASC)	0.214	0.184	0.185	0.169	0.173	0.157	0.150	0.149	0.148	0.147	0.147	
NET (% CF POP DEC)	0.147	0.146	0.146	0.144	0.142	0.137	0.093	0.094	0.069	0.083	0.200	
T STATISTICS	0.000	-0.659	-1.067	-0.975	-1.568	-2.208	-1.169	-1.048	0.000	0.000		
REPEAT (% OF POP REG)	0.214	0.083	0.148	0.110	0.119	0.083	0.008	0.086	0.059	0.000	0.200	
REPEAT (% OF POP ASC)	0.214	0.132	0.141	0.124	0.122	0.096	0.087	0.087	0.086	0.086	0.086	
REPEAT (% OF POP DEC)	0.086	0.085	0.085	0.082	0.078	0.072	0.033	0.078	0.069	0.083	0.200	
T STATISTICS	0.000	-1.014	-1.963	-2.118	-2.765	-2.748	-0.223	-0.292	0.000	0.000		

AVERAGE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	55.	0.	2.	5.	0.	1.	1.	0.	0.	8.	72.
X -----> O	52.	0.	2.	1.	1.	5.	0.	0.	0.	7.	68.
X -----> X	81.	3.	3.	5.	1.	3.	1.	0.	1.	4.	102.
O -----> O	644.	4.	11.	20.	5.	33.	12.	3.	1.	89.	822.
O <----> O	98.	2.	0.	2.	0.	4.	4.	1.	1.	8.	120.
TOTAL	930.	9.	18.	33.	7.	46.	18.	4.	3.	116.	1184.
TRIAL (COL/MCD REG)	0.069	0.000	0.154	0.185	0.000	0.026	0.059	0.000	0.000	0.076	
TRIAL (COL/MCD ASC)	0.069	0.068	0.070	0.074	0.073	0.071	0.071	0.071	0.070	0.071	
TRIAL (CCL/MCD DEC)	C.071	0.078	0.081	0.076	0.058	0.060	0.070	0.072	0.075	0.076	
T STATISTICS	0.475	0.608	0.290	-0.699	-0.591	-0.033	0.046	0.160	0.218		
NET (COL/MCD REG)	0.514	0.000	0.500	0.833	0.000	0.167	1.000	0.000	0.000	0.533	
NET (COL/MCD ASC)	0.514	0.514	0.514	0.530	0.525	0.508	0.512	0.512	0.512	0.514	
NET (COL/MCD DEC)	0.514	0.515	0.515	0.517	0.435	0.455	0.563	0.533	0.533	0.533	
REPEAT (COL/MCD REG)	0.609	1.000	0.600	0.833	0.500	0.375	1.000	0.000	1.000	0.364	
REPEAT (COL/MCD ASC)	0.609	0.618	0.617	0.626	0.624	0.611	0.614	0.614	0.616	0.600	
REPEAT (CCL/MCD DEC)	C.600	0.568	0.529	0.517	0.435	0.429	0.462	0.417	0.417	0.364	
T STATISTICS	-0.455	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.003	0.000	0.000	0.121	-0.143	-0.087	0.056	0.000	0.000	0.009	
GAIN (% OF POP ASC)	0.003	0.003	0.003	0.007	0.006	0.002	0.003	0.003	0.003	0.003	
GAIN (% OF POP DEC)	0.003	0.004	0.004	0.004	-0.015	-0.011	0.014	0.008	0.008	0.009	
TRIAL (% OF POP REG)	C.059	0.000	0.111	0.152	0.000	0.022	0.056	0.000	0.000	0.069	
TRIAL (% OF POP ASC)	0.059	0.059	0.060	0.063	0.062	0.060	0.060	0.060	0.060	0.061	
TRIAL (% OF POP DEC)	0.061	0.067	0.069	0.066	0.052	0.053	0.064	0.065	0.067	0.069	
T STATISTICS	0.460	0.631	0.369	-0.590	-0.457	0.160	0.207	0.309	0.387		
NET (% OF POP REG)	0.146	0.333	0.278	0.303	0.143	0.087	0.111	0.000	0.333	0.103	
NET (% OF POP ASC)	0.146	0.148	0.150	0.156	0.155	0.152	0.152	0.151	0.152	0.147	
NET (% OF POP DEC)	0.147	0.150	0.143	0.132	0.103	0.102	0.106	0.106	0.109	0.103	
T STATISTICS	0.134	-0.204	-0.701	-1.887	-1.909	-1.450	-1.366	-1.225	-1.394		
REPEAT (% OF POP REG)	0.087	0.333	0.167	0.152	0.143	0.065	0.056	0.000	0.333	0.034	
REPEAT (% OF POP ASC)	0.087	0.C89	0.091	0.093	0.093	0.092	0.091	0.091	0.092	0.086	
REPEAT (% OF POP DEC)	0.086	0.083	0.073	0.066	0.052	0.048	0.043	0.041	0.042	0.034	
T STATISTICS	-0.222	-0.794	-1.199	-1.878	-2.019	-1.966	-1.900	-1.809	-2.088		

AVERAGE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

SWITCHING TOWARD AND COUPON USAGE = 10
SWITCHING AWAY AND COUPON USAGE = 8
LOYAY TO TEST AND COUPON USAGE = 17
OTHER SWITCHING AND COUPON USAGE = 91
LOYAL TO OTHER AND COUPON USAGE = 22

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
0 -----> X	5.	2.	2.	1.	0.	0.	0.	0.	0.	0.	10.
X -----> 0	3.	2.	3.	0.	0.	0.	0.	0.	0.	0.	8.
X -----> X	5.	5.	0.	4.	0.	1.	1.	1.	0.	0.	17.
0 -----> 0	36.	29.	5.	12.	0.	3.	3.	3.	0.	0.	91.
0 <----> 0	11.	6.	2.	3.	0.	0.	0.	0.	0.	0.	22.
TOTAL	60.	44.	12.	20.	0.	4.	4.	4.	0.	0.	148.
TRIAL (COL/MCD REG)	0.096	0.054	0.222	0.063	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.096	0.079	0.092	0.088	0.088	0.085	0.083	0.081	0.081	0.081	
TRIAL (COL/MCD DEC)	0.081	0.070	0.088	0.040	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.625	0.500	0.400	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.625	0.583	0.529	0.556	0.556	0.556	0.556	0.556	0.556	0.556	
NET (COL/MCD DEC)	0.556	0.500	0.500	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.625	0.714	0.000	1.000	0.000	1.000	1.000	1.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.625	0.667	0.556	0.636	0.636	0.652	0.667	0.680	0.680	0.680	
REPEAT (COL/MCD DEC)	0.680	0.706	0.700	1.000	1.000	1.000	1.000	1.000	0.000	0.000	
GAIN (% OF POP REG)	0.033	0.000	-0.083	0.050	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.033	0.019	0.009	0.015	0.015	0.014	0.014	0.014	0.014	0.014	
GAIN (% OF POP DEC)	0.014	0.000	0.000	0.031	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.083	0.045	0.167	0.050	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.083	0.067	0.078	0.074	0.074	0.071	0.069	0.068	0.068	0.068	
TRIAL (% OF POP DEC)	0.068	0.057	0.068	0.031	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.167	0.159	0.167	0.250	0.000	0.250	0.250	0.250	0.000	0.000	
NET (% OF POP ASC)	0.167	0.163	0.164	0.176	0.176	0.179	0.181	0.182	0.182	0.182	
NET (% OF POP DEC)	0.182	0.193	0.227	0.250	0.250	0.250	0.250	0.250	0.000	0.000	
REPEAT (% OF POP REG)	0.083	0.114	0.000	0.200	0.000	0.250	0.250	0.250	0.000	0.000	
REPEAT (% OF POP ASC)	0.083	0.096	0.086	0.103	0.103	0.107	0.111	0.115	0.115	0.115	
REPEAT (% OF POP DEC)	0.115	0.136	0.159	0.219	0.250	0.250	0.250	0.250	0.000	0.000	

AVERAGE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	8.	2.	0.	0.	0.	0.	0.	0.	0.	0.	10.
X -----> O	5.	2.	1.	0.	0.	0.	0.	0.	0.	0.	8.
X -----> X	15.	0.	1.	1.	0.	0.	0.	0.	0.	0.	17.
O -----> O	72.	11.	2.	4.	1.	0.	1.	0.	0.	0.	91.
C <----> O	20.	2.	0.	0.	0.	0.	0.	0.	0.	0.	22.
TOTAL	120.	17.	4.	5.	1.	0.	1.	0.	0.	0.	148.
TRIAL (COL/MCD REG)	0.080	0.133	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.080	0.087	0.085	0.083	0.082	0.082	0.081	0.081	0.081	0.081	
TRIAL (COL/MCD DEC)	0.081	0.087	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.110	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.615	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.615	0.588	0.556	0.556	0.556	0.556	0.556	0.556	0.556	0.556	
NET (COL/MCD DEC)	0.556	0.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.750	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.750	0.682	0.667	0.680	0.680	0.680	0.680	0.680	0.680	0.680	
REPEAT (COL/MCD DEC)	0.680	0.400	0.667	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.025	0.000	-0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.025	0.022	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	
GAIN (% OF POP DEC)	0.014	-0.036	-0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.067	0.118	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.067	0.073	0.071	0.068	0.068	0.068	0.068	0.068	0.068	0.068	
TRIAL (% OF POP DEC)	0.068	0.071	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.090	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.192	0.118	0.250	0.200	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.192	0.182	0.184	0.185	0.184	0.184	0.182	0.182	0.182	0.182	
NET (% OF POP DEC)	0.182	0.143	0.182	0.143	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.602	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.125	0.000	0.250	0.200	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.125	0.109	0.113	0.116	0.116	0.116	0.115	0.115	0.115	0.115	
REPEAT (% OF POP DEC)	0.115	0.071	0.182	0.143	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.801	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

AVERAGE REGULAR COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	6.	2.	1.	1.	0.	0.	0.	0.	0.	0.	10.
X -----> O	5.	2.	1.	0.	0.	0.	0.	0.	0.	0.	8.
X -----> X	6.	5.	0.	4.	0.	0.	1.	1.	0.	0.	17.
O -----> O	48.	23.	5.	9.	2.	1.	2.	1.	0.	0.	91.
O <----> O	12.	6.	1.	3.	0.	0.	0.	0.	0.	0.	22.
TOTAL	77.	38.	8.	17.	2.	1.	3.	2.	0.	0.	148.
TRIAL (COL/MCD REG)	0.091	0.065	0.143	0.077	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.091	0.082	0.087	0.085	0.084	0.083	0.082	0.081	0.081	0.081	
TRIAL (COL/MCD DEC)	0.081	0.070	0.077	0.053	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.545	0.500	0.500	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.545	0.533	0.529	0.556	0.556	0.556	0.556	0.556	0.556	0.556	
NET (COL/MCD DEC)	0.556	0.571	0.667	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.545	0.714	0.000	1.000	0.000	0.000	1.000	1.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.545	0.611	0.579	0.652	0.652	0.652	0.667	0.680	0.680	0.680	
REPEAT (COL/MCD DEC)	0.680	0.786	0.857	1.000	1.000	1.000	1.000	1.000	0.000	0.000	
GAIN (% OF POP REG)	0.013	0.000	0.000	0.059	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.013	0.009	0.008	0.014	0.014	0.014	0.014	0.014	0.014	0.014	
GAIN (% OF POP DEC)	0.014	0.014	0.030	0.040	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.078	0.053	0.125	0.059	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.078	0.070	0.073	0.071	0.070	0.070	0.068	0.068	0.068	0.068	
TRIAL (% OF POP DEC)	0.068	0.056	0.061	0.040	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.156	0.184	0.125	0.294	0.000	0.000	0.333	0.500	0.000	0.000	
NET (% OF POP ASC)	0.156	0.165	0.163	0.179	0.176	0.175	0.178	0.182	0.182	0.182	
NET (% OF POP DEC)	0.182	0.211	0.242	0.280	0.250	0.333	0.400	0.500	0.000	0.000	
REPEAT (% OF POP REG)	0.078	0.132	0.000	0.235	0.000	0.000	0.333	0.500	0.000	0.000	
REPEAT (% OF POP ASC)	0.078	0.096	0.089	0.107	0.106	0.105	0.110	0.115	0.115	0.115	
REPEAT (% OF POP DEC)	0.115	0.155	0.182	0.240	0.250	0.333	0.400	0.500	0.000	0.000	

AVERAGE REGULAR COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	0.	1.	1.	1.	6.	1.	0.	0.	0.	0.	10.
X -----> O	0.	0.	0.	1.	1.	4.	1.	1.	0.	0.	0.	8.
X -----> X	2.	0.	3.	0.	6.	5.	0.	0.	1.	0.	0.	17.
O -----> O	4.	0.	8.	4.	24.	37.	10.	0.	3.	0.	1.	91.
C <----> O	0.	0.	3.	1.	5.	12.	1.	0.	0.	0.	0.	22.
TOTAL	6.	0.	15.	7.	37.	64.	13.	1.	4.	0.	1.	148.
TRIAL (COL/MCD REG)	0.000	0.000	0.083	0.167	0.033	0.109	0.083	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.000	0.063	0.091	0.058	0.084	0.084	0.084	0.082	0.082	0.081	
TRIAL (COL/MCD DEC)	0.081	0.084	0.084	0.084	0.079	0.099	0.063	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.000	0.000	1.000	0.500	0.500	0.600	0.500	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.000	1.000	0.667	0.600	0.600	0.588	0.556	0.556	0.556	0.556	
NET (COL/MCD DEC)	0.556	0.556	0.556	0.529	0.533	0.538	0.333	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	0.000	1.000	0.000	0.857	0.556	0.000	0.000	1.000	0.000	0.000	
REPEAT (COL/MCD ASC)	1.000	1.000	1.000	0.833	0.846	0.727	0.696	0.667	0.680	0.680	0.680	
REPEAT (COL/MCD DEC)	0.680	0.652	0.652	0.600	0.632	0.500	0.333	0.500	1.000	0.000	0.000	
GAIN (% OF POP REG)	0.000	0.000	0.067	0.000	0.000	0.031	0.000	-1.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	0.048	0.036	0.015	0.023	0.021	0.014	0.014	0.014	0.014	
GAIN (% OF POP DEC)	0.014	0.014	0.014	0.008	0.008	0.012	-0.053	-0.167	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.000	0.067	0.143	0.027	0.094	0.077	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.048	0.071	0.046	0.070	0.070	0.070	0.068	0.068	0.068	
TRIAL (% OF POP DEC)	0.068	0.070	0.070	0.071	0.067	0.084	0.053	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.333	0.000	0.267	0.143	0.189	0.172	0.077	0.000	0.250	0.000	0.000	
NET (% OF POP ASC)	0.333	0.333	0.286	0.250	0.215	0.194	0.183	0.182	0.184	0.184	0.182	
NET (% OF POP DEC)	0.182	0.176	0.176	0.165	0.167	0.157	0.105	0.167	0.200	0.000	0.000	
REPEAT (% OF POP REG)	0.333	0.000	0.200	0.000	0.162	0.078	0.000	0.000	0.250	0.000	0.000	
REPEAT (% OF POP ASC)	0.333	0.333	0.238	0.179	0.169	0.124	0.113	0.112	0.116	0.116	0.115	
REPEAT (% OF POP DEC)	0.115	0.106	0.106	0.094	0.100	0.072	0.053	0.167	0.200	0.000	0.000	

AVERAGE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	0.	1.	0.	1.	6.	2.	0.	0.	0.	0.	10.
X -----> O	0.	0.	0.	0.	1.	4.	2.	1.	0.	0.	0.	8.
X -----> X	1.	0.	3.	1.	3.	8.	0.	0.	1.	0.	0.	17.
O -----> O	2.	1.	6.	5.	10.	52.	11.	0.	3.	0.	1.	91.
O <----> O	0.	0.	3.	0.	2.	16.	1.	0.	0.	0.	0.	22.
TOTAL	3.	1.	13.	6.	17.	86.	16.	1.	4.	0.	1.	148.
TRIAL (COL/MCD REG)	0.000	0.000	0.100	0.000	0.077	0.081	0.143	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.000	0.077	0.056	0.065	0.076	0.084	0.084	0.082	0.082	0.081	
TRIAL (COL/MCD DEC)	0.081	0.083	0.083	0.082	0.086	0.087	0.111	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.395	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.000	0.000	1.000	0.000	0.500	0.600	0.500	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.000	1.000	1.000	0.667	0.615	0.588	0.556	0.556	0.556	0.556	
NET (COL/MCD DEC)	0.556	0.556	0.556	0.529	0.529	0.533	0.400	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	0.000	1.000	1.000	0.750	0.667	0.000	0.000	1.000	0.000	0.000	
REPEAT (COL/MCD ASC)	1.000	1.000	1.000	1.000	0.889	0.762	0.696	0.667	0.680	0.680	0.680	
REPEAT (COL/MCD DEC)	0.680	0.667	0.667	0.619	0.600	0.563	0.250	0.500	1.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	0.077	0.000	0.000	0.023	0.000	-1.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	0.059	0.043	0.025	0.024	0.021	0.014	0.014	0.014	0.014	
GAIN (% OF POP DEC)	0.014	0.014	0.014	0.008	0.008	0.009	-0.045	-0.167	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.000	0.077	0.000	0.059	0.070	0.125	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.059	0.043	0.050	0.063	0.070	0.070	0.068	0.068	0.068	
TRIAL (% OF POP DEC)	0.068	0.069	0.069	0.069	0.072	0.074	0.091	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.501	0.518	0.473	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.333	0.000	0.308	0.167	0.235	0.163	0.125	0.000	0.250	0.000	0.000	
NET (% OF POP ASC)	0.333	0.250	0.294	0.261	0.250	0.190	0.183	0.182	0.184	0.184	0.182	
NET (% OF POP DEC)	0.182	0.179	0.181	0.168	0.168	0.157	0.136	0.167	0.200	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	-1.060	-1.295	-0.606	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.333	0.000	0.231	0.167	0.176	0.093	0.000	0.000	0.250	0.000	0.000	
REPEAT (% OF POP ASC)	0.333	0.250	0.235	0.217	0.200	0.127	0.113	0.112	0.116	0.116	0.115	
REPEAT (% OF POP DEC)	0.115	0.110	0.111	0.099	0.096	0.083	0.045	0.167	0.200	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	-1.678	-1.977	-1.107	0.000	0.000	0.000	0.000		

AVERAGE REGULAR COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	8.	0.	0.	0.	0.	1.	0.	0.	0.	1.	10.
X -----> O	5.	0.	0.	0.	0.	1.	0.	0.	0.	2.	8.
X -----> X	15.	0.	0.	0.	1.	0.	0.	0.	0.	1.	17.
O -----> O	72.	0.	1.	1.	2.	2.	1.	0.	0.	12.	91.
O <----> O	20.	0.	0.	0.	0.	1.	0.	0.	0.	1.	22.
TOTAL	120.	0.	1.	1.	3.	5.	1.	0.	0.	17.	148.
TRIAL (COL/MCD REG)	0.080	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.071	
TRIAL (COL/MCD ASC)	0.080	0.080	0.079	0.078	0.077	0.083	0.083	0.083	0.083	0.081	
TRIAL (COL/MCD DEC)	0.081	0.087	0.087	0.091	0.095	0.105	0.067	0.071	0.071	0.071	
T STATISTICS	0.110	0.110	0.182	0.257	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.615	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.333	
NET (COL/MCD ASC)	0.615	0.615	0.615	0.615	0.615	0.600	0.600	0.600	0.600	0.556	
NET (COL/MCD DEC)	0.556	0.400	0.400	0.400	0.400	0.400	0.333	0.333	0.333	0.333	
REPEAT (COL/MCD REG)	0.750	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.333	
REPEAT (COL/MCD ASC)	0.750	0.750	0.750	0.750	0.762	0.727	0.727	0.727	0.727	0.680	
REPEAT (COL/MCD DEC)	0.680	0.400	0.400	0.400	0.400	0.250	0.333	0.333	0.333	0.333	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.059	
GAIN (% OF POP ASC)	0.025	0.025	0.025	0.025	0.024	0.023	0.023	0.023	0.023	0.014	
GAIN (% OF POP DEC)	0.014	-0.036	-0.036	-0.037	-0.038	-0.043	-0.056	-0.059	-0.059	-0.059	
TRIAL (% OF POP REG)	0.067	0.000	0.000	0.000	0.000	0.200	0.000	0.000	0.000	0.059	
TRIAL (% OF POP ASC)	0.067	0.067	0.066	0.066	0.064	0.069	0.069	0.069	0.069	0.068	
TRIAL (% OF POP DEC)	0.068	0.071	0.071	0.074	0.077	0.087	0.056	0.059	0.059	0.059	
T STATISTICS	0.090	0.090	0.149	0.209	0.403	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.192	0.000	0.000	0.000	0.333	0.200	0.000	0.000	0.000	0.118	
NET (% CF POP ASC)	0.192	0.192	0.190	0.189	0.192	0.192	0.191	0.191	0.191	0.182	
NET (% OF POP DEC)	0.182	0.143	0.143	0.148	0.154	0.130	0.111	0.118	0.118	0.118	
T STATISTICS	-0.602	-0.602	-0.510	-0.416	-0.703	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.125	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.059	
REPEAT (% OF POP ASC)	0.125	0.125	0.124	0.123	0.128	0.123	0.122	0.122	0.122	0.115	
REPEAT (% OF POP DEC)	0.115	0.071	0.071	0.074	0.077	0.043	0.056	0.059	0.059	0.059	
T STATISTICS	-0.801	-0.801	-0.735	-0.668	-1.168	0.000	0.000	0.000	0.000		

AVERAGE REGULAR COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

SWITCHING TOWARD AND CCUPON USAGE = 0
SWITCHING AWAY AND COUPON USAGE = 0
LOYAY TO TEST AND COUPON USAGE = 0
OTHER SWITCHING ANC COUPON USAGE = 0
LOYAL TO OTHER AND COUPCN USAGE = 0

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	26.	20.	4.	8.	3.	1.	0.	0.	0.	0.	62.
X -----> O	22.	12.	13.	7.	2.	2.	0.	1.	1.	0.	60.
X -----> X	33.	16.	14.	9.	4.	2.	4.	2.	0.	1.	85.
O -----> O	298.	182.	115.	65.	40.	12.	0.	9.	3.	7.	731.
O <-----> O	41.	22.	6.	11.	3.	3.	12.	0.	0.	0.	98.
TOTAL	420.	252.	152.	100.	52.	20.	16.	12.	4.	8.	1036.
TRIAL (COL/MCD REG)	0.071	0.089	0.032	0.095	0.065	0.063	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	C.071	0.078	0.070	0.073	0.072	0.072	0.071	0.070	0.070	0.070	
TRIAL (COL/MCD DEC)	C.070	0.068	0.053	0.068	0.043	0.021	0.000	0.000	0.000	0.000	
NET (COL/MCC REG)	0.542	0.625	0.235	0.533	0.600	0.333	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.542	0.575	0.515	0.518	0.521	0.517	0.517	0.512	0.508	0.508	
NET (COL/MCD DEC)	0.508	0.486	0.381	0.480	0.400	0.200	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.600	0.571	0.519	0.563	0.667	0.500	1.000	0.667	0.000	1.000	
REPEAT (COL/MCD ASC)	0.600	0.590	0.573	0.571	0.576	0.574	0.586	0.587	0.583	0.586	
REPEAT (COL/MCD DEC)	0.586	0.578	0.581	0.629	0.684	0.692	0.778	0.600	0.500	1.000	
GAIN (% CF POP REG)	0.010	0.032	-0.059	0.010	0.019	-0.050	0.000	-0.083	-0.250	0.000	
GAIN (% OF POP ASC)	0.010	C.018	0.004	0.004	0.005	0.004	0.004	0.003	0.002	0.002	
GAIN (% OF POP DEC)	0.002	-0.003	-0.027	-0.005	-0.018	-0.050	-C.050	-0.083	-0.083	0.000	
TRIAL (% OF PCP REG)	0.062	0.079	0.026	0.080	0.058	0.050	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.062	0.C68	0.061	0.063	0.063	0.062	0.061	0.061	0.060	0.060	
TRIAL (% OF PCP DEC)	0.060	0.058	0.044	0.057	0.036	0.017	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.140	0.143	0.118	0.170	0.135	0.150	0.250	0.167	0.000	0.125	
NET (% OF PCP ASC)	0.140	0.141	0.137	0.141	0.140	0.141	0.142	0.143	0.142	0.142	
NET (% OF POP DEC)	0.142	0.143	0.143	0.160	0.152	0.167	0.175	0.125	0.083	0.125	
REPEAT (% CF POP REG)	0.079	0.063	0.092	0.090	0.077	0.100	0.250	0.167	0.000	0.125	
REPEAT (% OF POP ASC)	0.079	0.073	0.076	0.078	0.078	0.078	0.081	0.082	0.082	0.082	
REPEAT (% OF POP DEC)	0.082	0.084	0.099	0.104	0.116	0.150	0.175	0.125	0.083	0.125	

AVERAGE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	47.	14.	1.	0.	0.	0.	0.	0.	0.	0.	62.
X -----> O	47.	8.	3.	2.	0.	0.	0.	0.	0.	0.	60.
X -----> X	66.	12.	6.	0.	0.	0.	1.	0.	0.	0.	85.
O -----> O	572.	103.	32.	14.	8.	1.	0.	0.	1.	0.	731.
O <----> O	78.	9.	4.	3.	2.	2.	0.	0.	0.	0.	98.
TOTAL	810.	146.	46.	19.	10.	3.	1.	0.	1.	0.	1036.
TRIAL (COL/MCD REG)	0.067	0.111	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.067	0.074	0.072	0.071	0.070	0.070	0.070	0.070	0.070	0.070	
TRIAL (COL/MCD DEC)	0.070	0.077	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.479	-1.851	-1.550	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.500	0.636	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.500	0.526	0.517	0.508	0.508	0.508	0.508	0.508	0.508	0.508	
NET (CCL/MCD DEC)	0.508	0.536	0.167	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.584	0.600	0.667	0.000	0.000	0.000	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.584	0.586	0.592	0.583	0.583	0.583	0.586	0.586	0.586	0.586	
REPEAT (CCL/MCD DEC)	0.586	0.594	0.583	0.333	1.000	1.000	1.000	0.000	0.000	0.000	
T STATISTICS	0.098	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.041	-0.043	-0.105	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.006	0.004	0.002	0.002	0.002	0.002	0.002	0.002	0.002	
GAIN (% OF POP DEC)	0.002	0.009	-0.050	-0.059	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.058	0.096	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.058	0.064	0.062	0.061	0.060	0.060	0.060	0.060	0.060	0.060	
TRIAL (% OF POP DEC)	0.060	0.066	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.468	-1.858	-1.496	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% CF POP REG)	0.140	0.178	0.152	0.000	0.000	0.000	1.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.140	0.145	0.146	0.143	0.142	0.141	0.142	0.142	0.142	0.142	
NET (% CF POP DEC)	0.142	0.150	0.100	0.029	0.067	0.200	0.500	0.000	0.000	0.000	
T STATISTICS	0.417	-1.118	-1.911	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.081	0.082	0.130	0.000	0.000	0.000	1.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.081	0.082	0.084	0.082	0.081	0.081	0.082	0.082	0.082	0.082	
REPEAT (% OF POP DEC)	0.082	0.084	0.087	0.029	0.067	0.200	0.500	0.000	0.000	0.000	
T STATISTICS	0.125	0.185	-1.137	0.000	0.000	0.000	0.000	0.000	0.000		

AVERAGE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
C -----> X	33.	14.	9.	3.	3.	0.	0.	0.	0.	0.	62.
X -----> O	27.	14.	8.	5.	4.	1.	1.	0.	0.	0.	60.
X -----> X	36.	20.	13.	5.	5.	4.	1.	0.	0.	1.	85.
O -----> O	375.	169.	100.	42.	27.	4.	1.	7.	3.	3.	731.
O <----> O	48.	24.	6.	8.	3.	4.	5.	0.	0.	0.	98.
TOTAL	519.	241.	136.	63.	42.	13.	8.	7.	3.	4.	1036.
TRIAL (COL/MCD REG)	0.072	0.068	0.078	0.057	0.091	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.072	0.071	0.072	0.071	0.072	0.071	0.071	0.070	0.070	0.070	
TRIAL (CCL/MCD DEC)	0.070	0.067	0.066	0.053	0.050	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.550	0.500	0.529	0.375	0.429	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.550	0.534	0.533	0.522	0.517	0.512	0.508	0.508	0.508	0.508	
NET (COL/MCD DEC)	0.508	0.468	0.441	0.353	0.333	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.571	0.588	0.619	0.500	0.556	0.800	0.500	0.000	0.000	1.000	
REPEAT (COL/MCD ASC)	0.571	0.577	0.585	0.578	0.577	0.585	0.583	0.583	0.583	0.586	
REPEAT (COL/MCD DEC)	0.586	0.598	0.604	0.593	0.647	0.750	0.667	1.000	1.000	1.000	
GAIN (% OF POP REG)	0.012	0.000	0.007	-0.032	-0.024	-0.077	-0.125	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.012	0.008	0.008	0.005	0.004	0.003	0.002	0.002	0.002	0.002	
GAIN (% OF POP DEC)	0.002	-0.008	-0.014	-0.036	-0.039	-0.057	-0.045	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.064	0.058	0.066	0.048	0.071	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.064	0.062	0.063	0.062	0.062	0.061	0.061	0.060	0.060	0.060	
TRIAL (% OF POP DEC)	0.060	0.056	0.054	0.043	0.039	0.000	0.000	0.000	0.000	0.000	
NET (% CF POP REG)	0.133	0.141	0.162	0.127	0.190	0.308	0.125	0.000	0.000	0.250	
NET (% OF POP ASC)	0.133	0.136	0.140	0.139	0.141	0.143	0.143	0.142	0.141	0.142	
NET (% CF POP DEC)	0.142	0.151	0.159	0.157	0.182	0.171	0.091	0.071	0.143	0.250	
REPEAT (% OF POP REG)	0.069	0.083	0.096	0.079	0.119	0.308	0.125	0.000	0.000	0.250	
REPEAT (% OF POP ASC)	0.069	0.074	0.077	0.077	0.079	0.082	0.082	0.082	0.081	0.082	
REPEAT (% OF POP DEC)	0.082	0.095	0.105	0.114	0.143	0.171	0.091	0.071	0.143	0.250	

AVERAGE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
0 -----> X	0.	2.	3.	5.	18.	26.	8.	0.	0.	0.	0.	62.
X -----> 0	1.	3.	6.	7.	12.	26.	2.	2.	1.	0.	0.	60.
X -----> X	3.	5.	6.	11.	19.	36.	2.	2.	0.	0.	1.	85.
0 -----> 0	16.	22.	40.	78.	154.	328.	60.	20.	6.	6.	1.	731.
0 <----> 0	7.	4.	7.	4.	19.	44.	6.	4.	1.	1.	1.	98.
TOTAL	27.	36.	62.	105.	222.	460.	78.	28.	8.	7.	3.	1036.
TRIAL (COL/MCD REG)	0.000	0.071	0.060	0.057	0.094	0.065	0.108	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.039	0.050	0.053	0.074	0.069	0.073	0.071	0.070	0.070	0.070	
TRIAL (COL/MCD DEC)	0.070	0.071	0.071	0.072	0.074	0.066	0.070	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.000	0.400	0.333	0.417	0.600	0.500	0.800	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.333	0.333	0.370	0.491	0.495	0.521	0.512	0.508	0.508	0.508	
NET (COL/MCD DEC)	0.508	0.512	0.517	0.533	0.547	0.523	0.615	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.750	0.625	0.500	0.611	0.613	0.581	0.500	0.500	0.000	0.000	1.000	
REPEAT (COL/MCD ASC)	0.750	0.667	0.583	0.595	0.603	0.593	0.590	0.587	0.583	0.583	0.586	
REPEAT (COL/MCD DEC)	0.586	0.582	0.579	0.587	0.583	0.569	0.500	0.500	0.500	1.000	1.000	
GAIN (% OF POP REG)	-0.037	-0.028	-0.048	-0.019	0.027	0.000	0.077	-0.071	-0.125	0.000	0.000	
GAIN (% OF POP ASC)	-0.037	-0.032	-0.040	-0.030	-0.002	-0.001	0.005	0.003	0.002	0.002	0.002	
GAIN (% OF POP DEC)	0.002	0.003	0.004	0.008	0.011	0.005	0.024	-0.065	-0.056	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.056	0.048	0.048	0.081	0.057	0.103	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.032	0.040	0.043	0.062	0.059	0.063	0.061	0.060	0.060	0.060	
TRIAL (% OF POP DEC)	0.060	0.061	0.062	0.063	0.065	0.058	0.065	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.111	0.194	0.145	0.152	0.167	0.135	0.128	0.071	0.000	0.000	0.333	
NET (% OF POP ASC)	0.111	0.159	0.152	0.152	0.159	0.147	0.145	0.143	0.142	0.141	0.142	
NET (% OF POP DEC)	0.142	0.143	0.141	0.141	0.139	0.128	0.105	0.065	0.056	0.100	0.333	
REPEAT (% OF POP REG)	0.111	0.139	0.097	0.105	0.086	0.078	0.026	0.071	0.000	0.000	0.333	
REPEAT (% OF POP ASC)	0.111	0.127	0.112	0.109	0.097	0.088	0.083	0.083	0.082	0.081	0.082	
REPEAT (% OF POP DEC)	0.082	0.081	0.079	0.078	0.074	0.070	0.040	0.065	0.056	0.100	0.333	

AVERAGE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	2.	1.	5.	7.	38.	8.	1.	0.	0.	0.	62.
X -----> O	0.	1.	6.	7.	8.	28.	7.	2.	1.	0.	0.	60.
X -----> X	2.	2.	5.	11.	13.	47.	1.	3.	0.	0.	1.	85.
O -----> O	6.	14.	24.	73.	83.	409.	80.	25.	10.	6.	1.	731.
O <----> O	3.	4.	5.	7.	7.	57.	7.	3.	2.	1.	2.	98.
TOTAL	11.	23.	41.	103.	118.	579.	103.	34.	13.	7.	4.	1036.
TRIAL (COL/MCD REG)	0.000	0.100	0.033	0.059	0.072	0.075	0.084	0.034	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.069	0.051	0.056	0.062	0.071	0.073	0.071	0.070	0.070	0.070	
TRIAL (COL/MCD DEC)	0.070	0.070	0.070	0.071	0.072	0.072	0.062	0.020	0.000	0.000	0.000	
T STATISTICS	0.000	0.013	0.585	0.722	0.524	-0.409	-1.402	0.000	0.000	0.000		
NET (COL/MCD REG)	0.000	0.667	0.143	0.417	0.467	0.576	0.533	0.333	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.667	0.300	0.364	0.405	0.515	0.517	0.512	0.508	0.508	0.508	
NET (COL/MCD DEC)	0.508	0.508	0.504	0.527	0.540	0.553	0.474	0.250	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	0.667	0.455	0.611	0.619	0.627	0.125	0.600	0.000	0.000	1.000	
REPEAT (COL/MCD ASC)	1.000	0.800	0.563	0.588	0.600	0.615	0.587	0.587	0.583	0.583	0.586	
REPEAT (COL/MCD DEC)	0.586	0.580	0.579	0.589	0.586	0.578	0.333	0.571	0.500	1.000	1.000	
T STATISTICS	0.000	0.000	0.000	-0.023	-0.211	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.043	-0.122	-0.019	-0.008	0.017	0.010	-0.029	-0.077	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.029	-0.053	-0.034	-0.024	0.003	0.004	0.003	0.002	0.002	0.002	
GAIN (% OF POP DEC)	0.002	0.002	0.001	0.006	0.009	0.012	-0.006	-0.034	-0.042	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.087	0.024	0.049	0.059	0.066	0.078	0.029	0.000	0.000	0.000	
TRIAL (% CF POP ASC)	0.000	0.059	0.040	0.045	0.051	0.061	0.062	0.061	0.060	0.060	0.060	
TRIAL (% OF POP DEC)	0.060	0.060	0.060	0.061	0.063	0.064	0.056	0.017	0.000	0.000	0.000	
T STATISTICS	0.000	0.026	0.752	0.921	0.786	-0.225	-1.322	0.000	0.000	0.000		
NET (% OF PUP REG)	0.182	0.174	0.146	0.155	0.169	0.147	0.087	0.118	0.000	0.000	0.250	
NET (% OF PUP ASC)	0.182	0.176	0.160	0.157	0.162	0.152	0.145	0.144	0.142	0.141	0.142	
NET (% CF POP DEC)	0.142	0.141	0.141	0.140	0.139	0.134	0.087	0.086	0.042	0.091	0.250	
T STATISTICS	0.000	-0.587	-0.466	-0.647	-1.181	-2.131	-1.176	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.182	0.087	0.122	0.107	0.110	0.081	0.010	0.088	0.000	0.000	0.250	
REPEAT (% OF POP ASC)	0.182	0.118	0.120	0.112	0.111	0.091	0.083	0.083	0.082	0.081	0.082	
REPEAT (% OF POP DEC)	0.082	0.081	0.081	0.079	0.076	0.070	0.031	0.069	0.042	0.091	0.250	
T STATISTICS	0.000	-0.769	-1.243	-1.618	-2.180	-2.513	-0.351	0.000	0.000	0.000		

AVERAGE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	47.	0.	2.	5.	0.	0.	1.	0.	0.	7.	62.
X -----> O	47.	0.	2.	1.	1.	4.	0.	0.	0.	5.	60.
X -----> X	66.	3.	3.	5.	0.	3.	1.	0.	1.	3.	85.
O -----> O	572.	4.	10.	19.	3.	31.	11.	3.	1.	77.	731.
O <----> O	78.	2.	0.	2.	0.	3.	4.	1.	1.	7.	98.
TOTAL	810.	9.	17.	32.	4.	41.	17.	4.	3.	99.	1036.
TRIAL (CCL/MCD REG)	0.067	0.000	0.167	0.192	0.000	0.000	0.063	0.000	0.000	0.077	
TRIAL (COL/MCD ASC)	0.067	0.067	0.069	0.073	0.073	0.069	0.069	0.069	0.069	0.070	
TRIAL (COL/MCD DEC)	0.070	0.077	0.080	0.074	0.053	0.054	0.071	0.072	0.075	0.077	
T STATISTICS	0.479	0.619	0.249	-0.858	-0.791	0.054	0.106	0.228	0.290		
NET (COL/MCD REG)	0.500	0.000	0.500	0.833	0.000	0.000	1.000	0.000	0.000	0.583	
NET (COL/MCD ASC)	0.500	0.500	0.500	0.519	0.514	0.495	0.500	0.500	0.500	0.508	
NET (COL/MCD DEC)	0.508	0.536	0.536	0.542	0.444	0.471	0.615	0.583	0.583	0.583	
REPEAT (COL/MCD REG)	0.584	1.000	0.600	0.833	0.000	0.429	1.000	0.000	1.000	0.375	
REPEAT (COL/MCD ASC)	0.584	0.595	0.595	0.606	0.602	0.593	0.596	0.596	0.599	0.586	
REPEAT (COL/MCD DEC)	0.586	0.594	0.552	0.542	0.444	0.471	0.500	0.444	0.444	0.375	
T STATISTICS	0.098	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	0.000	0.125	-0.250	-0.098	0.059	0.000	0.000	0.020	
GAIN (% OF POP ASC)	0.000	0.000	0.000	0.005	0.003	-0.001	0.000	0.000	0.000	0.002	
GAIN (% OF POP DEC)	0.002	0.009	0.009	0.010	-0.012	-0.006	0.024	0.019	0.020	0.020	
TRIAL (% OF POP REG)	0.058	0.000	0.118	0.156	0.000	0.000	0.059	0.000	0.000	0.071	
TRIAL (% OF PUP ASC)	0.058	0.057	0.059	0.062	0.062	0.059	0.059	0.059	0.059	0.060	
TRIAL (% OF PCP DEC)	0.060	0.066	0.069	0.065	0.048	0.049	0.065	0.066	0.069	0.071	
T STATISTICS	0.468	0.648	0.342	-0.730	-0.651	0.259	0.284	0.394	0.479		
NET (% OF POP REG)	0.140	0.333	0.294	0.313	0.000	0.073	0.118	0.000	0.333	0.101	
NET (% CF POP ASC)	0.140	0.142	0.145	0.151	0.150	0.147	0.146	0.146	0.146	0.142	
NET (% OF POP DEC)	0.142	0.150	0.143	0.130	0.095	0.098	0.106	0.104	0.108	0.101	
T STATISTICS	0.417	0.046	-0.537	-1.893	-1.773	-1.226	-1.187	-1.038	-1.226		
REPEAT (% CF POP REG)	0.081	0.333	0.176	0.156	0.000	0.073	0.059	0.000	0.333	0.030	
REPEAT (% OF PUP ASC)	0.081	0.084	0.086	0.089	0.088	0.088	0.087	0.087	0.088	0.082	
REPEAT (% OF POP DEC)	0.082	0.084	0.074	0.065	0.048	0.049	0.041	0.038	0.039	0.030	
T STATISTICS	0.125	-0.502	-0.978	-1.776	-1.692	-1.782	-1.755	-1.660	-1.973		

FOLGERS REGULAR COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS

SHARE OF TRANSACTIONS = 0.154
SHARE OF EXPOSURES = 0.378

SWITCHING TOWARD AND COUPON USAGE	=	2
SWITCHING AWAY AND COUPON USAGE	=	0
LOYAY TO TEST AND COUPON USAGE	=	4
OTHER SWITCHING AND COUPON USAGE	=	27
LOYAL TO OTHER AND COUPON USAGE	=	4

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	7.	4.	1.	4.	0.	1.	0.	0.	0.	0.	17.
X -----> O	5.	6.	4.	1.	0.	0.	0.	0.	0.	0.	16.
X -----> X	15.	5.	2.	4.	1.	0.	1.	0.	0.	0.	28.
O -----> O	85.	52.	33.	18.	11.	4.	1.	4.	1.	2.	211.
O <----> O	8.	7.	1.	3.	1.	1.	3.	0.	0.	0.	24.
TOTAL	120.	74.	41.	30.	13.	6.	5.	4.	1.	2.	296.
TRIAL (COL/MCD REG)	0.070	0.063	0.029	0.160	0.000	0.167	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.070	0.067	0.061	0.072	0.068	0.071	0.069	0.068	0.068	0.067	
TRIAL (COL/MCD DEC)	0.067	0.066	0.067	0.093	0.034	0.059	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.583	0.400	0.200	0.800	0.000	1.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.583	0.500	0.444	0.500	0.500	0.515	0.515	0.515	0.515	0.515	
NET (COL/MCD DEC)	0.515	0.476	0.545	0.833	1.000	1.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.750	0.455	0.333	0.800	1.000	0.000	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.750	0.645	0.595	0.619	0.628	0.628	0.636	0.636	0.636	0.636	
REPEAT (COL/MCD DEC)	0.636	0.542	0.615	0.857	1.000	1.000	1.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.017	-0.027	-0.073	0.100	0.000	0.167	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.017	0.000	-0.013	0.000	0.000	0.004	0.003	0.003	0.003	0.003	
GAIN (% OF POP DEC)	0.003	-0.006	0.010	0.066	0.032	0.056	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.058	0.054	0.024	0.133	0.000	0.167	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.058	0.057	0.051	0.060	0.058	0.060	0.059	0.058	0.058	0.057	
TRIAL (% OF POP DEC)	0.057	0.057	0.059	0.082	0.032	0.056	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.183	0.122	0.073	0.267	0.077	0.167	0.200	0.000	0.000	0.000	
NET (% OF POP ASC)	0.183	0.160	0.145	0.158	0.155	0.155	0.156	0.154	0.153	0.152	
NET (% OF POP DEC)	0.152	0.131	0.137	0.180	0.097	0.111	0.083	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.125	0.068	0.049	0.133	0.077	0.000	0.200	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.125	0.103	0.094	0.098	0.097	0.095	0.097	0.096	0.095	0.095	
REPEAT (% OF POP DEC)	0.095	0.074	0.078	0.098	0.065	0.056	0.083	0.000	0.000	0.000	

FOLGERS REGULAR COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
0 -----> X	10.	6.	1.	0.	0.	0.	0.	0.	0.	0.	17.
X -----> 0	9.	5.	1.	1.	0.	0.	0.	0.	0.	0.	16.
X -----> X	22.	3.	2.	1.	0.	0.	0.	0.	0.	0.	28.
0 -----> 0	140.	42.	15.	6.	6.	1.	1.	0.	0.	0.	211.
0 <----> 0	19.	1.	1.	1.	0.	2.	0.	0.	0.	0.	24.
TOTAL	200.	57.	20.	9.	6.	3.	1.	0.	0.	0.	296.
TRIAL (COL/MCD REG)	0.059	0.122	0.059	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.059	0.073	0.072	0.070	0.069	0.068	0.067	0.067	0.067	0.067	
TRIAL (COL/MCD DEC)	0.067	0.084	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.749	-0.951	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.526	0.545	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.526	0.533	0.531	0.515	0.515	0.515	0.515	0.515	0.515	0.515	
NET (COL/MCD DEC)	0.515	0.500	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.710	0.375	0.667	0.500	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.710	0.641	0.643	0.636	0.636	0.636	0.636	0.636	0.636	0.636	
REPEAT (COL/MCD DEC)	0.636	0.462	0.600	0.500	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.005	0.018	0.000	-0.111	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.005	0.008	0.007	0.003	0.003	0.003	0.003	0.003	0.003	0.003	
GAIN (% OF POP DEC)	0.003	0.000	-0.026	-0.053	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.050	0.105	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.050	0.062	0.061	0.059	0.058	0.058	0.057	0.057	0.057	0.057	
TRIAL (% OF POP DEC)	0.057	0.073	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.793	-0.916	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.160	0.158	0.150	0.111	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.160	0.160	0.159	0.157	0.154	0.153	0.152	0.152	0.152	0.152	
NET (% OF POP DEC)	0.152	0.135	0.103	0.053	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.551	-0.923	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.110	0.053	0.100	0.111	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.110	0.097	0.097	0.098	0.096	0.095	0.095	0.095	0.095	0.095	
REPEAT (% OF POP DEC)	0.095	0.063	0.077	0.053	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.307	-0.405	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

FOLGERS REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	8.	5.	3.	0.	1.	0.	0.	0.	0.	0.	17.
X -----> O	9.	7.	0.	0.	0.	0.	0.	0.	0.	0.	16.
X -----> X	18.	4.	3.	1.	2.	0.	0.	0.	0.	0.	28.
O -----> O	128.	37.	25.	12.	4.	2.	0.	1.	1.	1.	211.
O <----> O	11.	8.	1.	1.	1.	0.	2.	0.	0.	0.	24.
TOTAL	174.	61.	32.	14.	8.	2.	2.	1.	1.	1.	296.
TRIAL (COL/MCD REG)	0.054	0.100	0.103	0.000	0.167	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.054	0.066	0.071	0.067	0.069	0.069	0.068	0.068	0.068	0.067	
TRIAL (COL/MCD DEC)	0.067	0.086	0.073	0.038	0.077	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.471	0.417	1.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.471	0.448	0.500	0.500	0.515	0.515	0.515	0.515	0.515	0.515	
NET (COL/MCD DEC)	0.515	0.563	1.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.667	0.364	1.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.667	0.579	0.610	0.619	0.636	0.636	0.636	0.636	0.636	0.636	
REPEAT (COL/MCD DEC)	0.636	0.588	1.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	-0.006	-0.033	0.094	0.000	0.125	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.006	-0.013	0.000	0.000	0.003	0.003	0.003	0.003	0.003	0.003	
GAIN (% OF POP DEC)	0.003	0.016	0.066	0.034	0.067	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.046	0.082	0.094	0.000	0.125	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.046	0.055	0.060	0.057	0.059	0.058	0.058	0.058	0.058	0.057	
TRIAL (% OF POP DEC)	0.057	0.074	0.066	0.034	0.067	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.149	0.148	0.188	0.071	0.375	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.149	0.149	0.154	0.149	0.156	0.155	0.154	0.153	0.153	0.152	
NET (% OF POP DEC)	0.152	0.156	0.164	0.138	0.200	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.103	0.066	0.094	0.071	0.250	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.103	0.094	0.094	0.093	0.097	0.096	0.096	0.095	0.095	0.095	
REPEAT (% OF POP DEC)	0.095	0.082	0.098	0.103	0.133	0.000	0.000	0.000	0.000	0.000	

FOLGERS REGULAR COFFEE 7-DAY WINDOW   60% FREQ ENTIRE DAY
ALL TRANSACTIONS.

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	0.	1.	0.	6.	8.	2.	0.	0.	0.	0.	17.
X -----> O	0.	0.	0.	0.	4.	8.	2.	1.	1.	0.	0.	16.
X -----> X	0.	1.	1.	2.	6.	15.	1.	1.	1.	0.	0.	28.
O -----> O	4.	2.	10.	19.	32.	94.	30.	11.	4.	4.	1.	211.
O <----> O	2.	1.	1.	1.	6.	8.	2.	0.	1.	1.	1.	24.
TOTAL	6.	4.	13.	22.	54.	133.	37.	13.	7.	5.	2.	296.
TRIAL (COL/MCD REG)	0.000	0.000	0.083	0.000	0.136	0.073	0.059	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.000	0.048	0.024	0.082	0.077	0.074	0.071	0.069	0.068	0.067	
TRIAL (COL/MCD DEC)	0.067	0.069	0.070	0.069	0.076	0.060	0.035	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.000	0.000	1.000	0.000	0.600	0.500	0.500	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.000	1.000	1.000	0.636	0.556	0.548	0.531	0.515	0.515	0.515	
NET (COL/MCD DEC)	0.515	0.515	0.515	0.500	0.500	0.455	0.333	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	1.000	1.000	1.000	0.600	0.652	0.333	0.500	0.500	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	1.000	1.000	1.000	0.714	0.676	0.650	0.643	0.636	0.636	0.636	
REPEAT (COL/MCD DEC)	0.636	0.636	0.628	0.619	0.600	0.600	0.429	0.500	0.500	0.000	0.000	
GAIN (% OF POP REG)	0.000	0.000	0.077	0.000	0.037	0.000	0.000	-0.077	-0.143	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	0.043	0.022	0.030	0.013	0.011	0.007	0.003	0.003	0.003	
GAIN (% OF POP DEC)	0.003	0.003	0.003	0.000	0.000	-0.010	-0.031	-0.074	-0.071	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.000	0.077	0.000	0.111	0.060	0.054	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.043	0.022	0.071	0.065	0.063	0.060	0.059	0.058	0.057	
TRIAL (% OF POP DEC)	0.057	0.059	0.059	0.059	0.064	0.051	0.031	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.000	0.250	0.154	0.091	0.222	0.173	0.081	0.077	0.143	0.000	0.000	
NET (% OF POP ASC)	0.000	0.100	0.130	0.111	0.172	0.172	0.160	0.156	0.156	0.153	0.152	
NET (% OF POP DEC)	0.152	0.155	0.154	0.154	0.159	0.142	0.078	0.074	0.071	0.000	0.000	
REPEAT (% OF POP REG)	0.000	0.250	0.077	0.091	0.111	0.113	0.027	0.077	0.143	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.100	0.087	0.089	0.101	0.108	0.097	0.096	0.097	0.095	0.095	
REPEAT (% OF POP DEC)	0.095	0.097	0.094	0.095	0.096	0.091	0.047	0.074	0.071	0.000	0.000	

FOLGERS REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	0.	0.	1.	2.	10.	3.	1.	0.	0.	0.	17.
X -----> O	0.	0.	0.	0.	2.	7.	5.	1.	1.	0.	0.	16.
X -----> X	0.	1.	1.	2.	2.	19.	1.	1.	1.	0.	0.	28.
O -----> O	2.	1.	6.	13.	23.	109.	35.	11.	6.	4.	1.	211.
O <----> O	0.	1.	1.	2.	2.	13.	2.	0.	1.	0.	2.	24.
TOTAL	2.	3.	8.	18.	31.	158.	46.	14.	9.	4.	3.	296.
TRIAL (COL/MCD REG)	0.000	0.000	0.000	0.063	0.074	0.076	0.075	0.083	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.000	0.000	0.037	0.056	0.070	0.071	0.071	0.069	0.068	0.067	
TRIAL (COL/MCD DEC)	0.067	0.068	0.069	0.071	0.071	0.071	0.061	0.038	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.667	0.393	-0.254	-0.588	0.000	0.000	0.000		
NET (COL/MCD REG)	0.000	0.000	0.000	1.000	0.500	0.588	0.375	0.500	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.000	0.000	1.000	0.600	0.571	0.533	0.531	0.515	0.515	0.515	
NET (COL/MCD DEC)	0.515	0.515	0.515	0.515	0.500	0.500	0.364	0.333	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	1.000	1.000	1.000	0.500	0.731	0.167	0.500	0.500	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	1.000	1.000	1.000	0.750	0.735	0.650	0.643	0.636	0.636	0.636	
REPEAT (COL/MCD DEC)	0.636	0.636	0.629	0.619	0.600	0.611	0.300	0.500	0.500	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	0.000	0.056	0.000	0.019	-0.043	0.000	-0.111	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	0.000	0.032	0.016	0.018	0.008	0.007	0.003	0.003	0.003	
GAIN (% OF POP DEC)	0.003	0.003	0.003	0.004	0.000	0.000	-0.039	-0.033	-0.063	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.000	0.000	0.056	0.065	0.063	0.065	0.071	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.000	0.032	0.048	0.059	0.060	0.061	0.059	0.058	0.057	
TRIAL (% OF POP DEC)	0.057	0.058	0.058	0.060	0.060	0.060	0.053	0.033	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.636	0.344	-0.204	-0.559	0.000	0.000	0.000		
NET (% OF POP REG)	0.000	0.333	0.125	0.167	0.129	0.184	0.087	0.143	0.111	0.000	0.000	
NET (% OF POP ASC)	0.000	0.200	0.154	0.161	0.145	0.173	0.158	0.157	0.156	0.154	0.152	
NET (% OF POP DEC)	0.152	0.153	0.151	0.152	0.151	0.154	0.092	0.100	0.063	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	-0.152	0.169	-1.650	-0.783	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.000	0.333	0.125	0.111	0.065	0.120	0.022	0.071	0.111	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.200	0.154	0.129	0.077	0.114	0.098	0.096	0.097	0.096	0.095	
REPEAT (% OF POP DEC)	0.095	0.095	0.093	0.092	0.091	0.094	0.039	0.067	0.063	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	-0.692	-0.066	-1.660	-0.516	0.000	0.000	0.000		

FOLGERS REGULAR COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	10.	0.	1.	3.	0.	1.	1.	0.	0.	1.	17.
X -----> O	9.	0.	0.	0.	0.	3.	0.	0.	0.	4.	16.
X -----> X	22.	0.	0.	3.	0.	0.	0.	0.	0.	3.	28.
O -----> O	140.	2.	5.	5.	0.	11.	4.	1.	0.	43.	211.
O <----> O	19.	0.	0.	0.	0.	0.	1.	0.	1.	3.	24.
TOTAL	200.	2.	6.	11.	0.	15.	6.	1.	1.	54.	296.
TRIAL (COL/MCD REG)	0.059	0.000	0.167	0.375	0.000	0.083	0.167	0.000	0.000	0.021	
TRIAL (COL/MCD ASC)	0.059	0.058	0.062	0.076	0.076	0.076	0.077	0.078	0.078	0.067	
TRIAL (COL/MCD DEC)	0.067	0.084	0.086	0.080	0.045	0.045	0.036	0.020	0.021	0.021	
T STATISTICS	0.749	0.826	0.517	-0.864	-0.864	-1.040	-1.463	-1.431	-1.400		
NET (COL/MCD REG)	0.526	0.000	1.000	1.000	0.000	0.250	1.000	0.000	0.000	0.200	
NET (COL/MCD ASC)	0.526	0.526	0.550	0.609	0.609	0.556	0.571	0.571	0.571	0.515	
NET (COL/MCD DEC)	0.515	0.500	0.500	0.462	0.300	0.300	0.333	0.200	0.200	0.200	
REPEAT (COL/MCD REG)	0.710	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.429	
REPEAT (COL/MCD ASC)	0.710	0.710	0.710	0.735	0.735	0.676	0.676	0.676	0.676	0.636	
REPEAT (COL/MCD DEC)	0.636	0.462	0.462	0.462	0.300	0.300	0.429	0.429	0.429	0.429	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.005	0.000	0.167	0.273	0.000	-0.133	0.167	0.000	0.000	-0.056	
GAIN (% OF POP ASC)	0.005	0.005	0.010	0.023	0.023	0.013	0.017	0.017	0.017	0.003	
GAIN (% OF POP DEC)	0.003	0.000	0.000	-0.011	-0.052	-0.052	-0.032	-0.054	-0.055	-0.056	
TRIAL (% OF POP REG)	0.050	0.000	0.167	0.273	0.000	0.067	0.167	0.000	0.000	0.019	
TRIAL (% OF POP ASC)	0.050	0.050	0.053	0.064	0.064	0.064	0.067	0.066	0.066	0.057	
TRIAL (% OF POP DEC)	0.057	0.073	0.074	0.068	0.039	0.039	0.032	0.018	0.018	0.019	
T STATISTICS	0.793	0.859	0.517	-0.810	-0.810	-0.958	-1.414	-1.387	-1.359		
NET (% OF POP REG)	0.160	0.000	0.167	0.545	0.000	0.067	0.167	0.000	0.000	0.074	
NET (% OF POP ASC)	0.160	0.158	0.159	0.178	0.178	0.171	0.171	0.170	0.169	0.152	
NET (% OF POP DEC)	0.152	0.135	0.138	0.136	0.078	0.078	0.081	0.071	0.073	0.074	
T STATISTICS	-0.551	-0.449	-0.488	-2.106	-2.106	-1.761	-1.866	-1.815	-1.764		
REPEAT (% OF POP REG)	0.110	0.000	0.000	0.273	0.000	0.000	0.000	0.000	0.000	0.056	
REPEAT (% OF POP ASC)	0.110	0.109	0.106	0.114	0.114	0.107	0.104	0.104	0.103	0.095	
REPEAT (% OF POP DEC)	0.095	0.063	0.054	0.068	0.039	0.039	0.048	0.054	0.055	0.056	
T STATISTICS	-1.307	-1.234	-1.010	-1.939	-1.939	-1.398	-1.165	-1.125	-1.084		

FOLGERS REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

SHARE OF TRANSACTIONS = 0.154
SHARE OF EXPOSURES = 0.377

SWITCHING TOWARD AND COUPON USAGE = 2
SWITCHING AWAY AND COUPON USAGE = 0
LOYAY TO TEST AND COUPON USAGE = 4
OTHER SWITCHING AND COUPON USAGE = 27
LOYAL TO OTHER AND COUPON USAGE = 4

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O ------> X	1.	0.	1.	0.	0.	0.	0.	0.	0.	0.	2.
X ------> O	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
X ------> X	2.	0.	0.	2.	0.	0.	0.	0.	0.	0.	4.
O ------> O	10.	9.	2.	3.	0.	1.	1.	1.	0.	0.	27.
O <-----> O	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	4.
TOTAL	15.	11.	3.	5.	0.	1.	1.	1.	0.	0.	37.
TRIAL (COL/MCD REG)	0.077	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.077	0.042	0.074	0.067	0.067	0.065	0.063	0.061	0.061	0.061	
TRIAL (COL/MCD DEC)	0.061	0.050	0.111	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	1.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
NET (COL/MCD DEC)	1.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
REPEAT (COL/MCD DEC)	1.000	1.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.067	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.067	0.038	0.069	0.059	0.059	0.057	0.056	0.054	0.054	0.054	
GAIN (% OF POP DEC)	0.054	0.045	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.067	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.067	0.038	0.069	0.059	0.059	0.057	0.056	0.054	0.054	0.054	
TRIAL (% OF POP DEC)	0.054	0.045	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.200	0.000	0.333	0.400	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.200	0.115	0.138	0.176	0.176	0.171	0.167	0.162	0.162	0.162	
NET (% OF POP DEC)	0.162	0.136	0.273	0.250	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.133	0.000	0.000	0.400	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.133	0.077	0.069	0.118	0.118	0.114	0.111	0.108	0.108	0.108	
REPEAT (% OF POP DEC)	0.108	0.091	0.182	0.250	0.000	0.000	0.000	0.000	0.000	0.000	

FOLGERS REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	2.
X -----> O	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
X -----> X	3.	0.	0.	1.	0.	0.	0.	0.	0.	0.	4.
O -----> O	19.	5.	0.	1.	1.	0.	1.	0.	0.	0.	27.
O <----> O	4.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.
TOTAL	27.	6.	0.	2.	1.	0.	1.	0.	0.	0.	37.
TRIAL (COL/MCD REG)	0.042	0.167	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.042	0.067	0.067	0.065	0.063	0.063	0.061	0.061	0.061	0.061	
TRIAL (COL/MCD DEC)	0.061	0.111	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
NET (COL/MCD DEC)	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
REPEAT (COL/MCD DEC)	1.000	1.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.037	0.167	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.037	0.061	0.061	0.057	0.056	0.056	0.054	0.054	0.054	0.054	
GAIN (% OF POP DEC)	0.054	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.037	0.167	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.037	0.061	0.061	0.057	0.056	0.056	0.054	0.054	0.054	0.054	
TRIAL (% OF POP DEC)	0.054	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.148	0.167	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.148	0.152	0.152	0.171	0.167	0.167	0.162	0.162	0.162	0.162	
NET (% OF POP DEC)	0.162	0.200	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.111	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.111	0.091	0.091	0.114	0.111	0.111	0.108	0.108	0.108	0.108	
REPEAT (% OF POP DEC)	0.108	0.100	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

FOLGERS REGULAR COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	2.
X -----> O	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
X -----> X	3.	0.	0.	1.	0.	0.	0.	0.	0.	0.	4.
O -----> O	15.	7.	1.	3.	1.	0.	0.	0.	0.	0.	27.
O <----> O	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	4.
TOTAL	21.	10.	1.	4.	1.	0.	0.	0.	0.	0.	37.
TRIAL (COL/MCD REG)	0.056	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.056	0.071	0.069	0.063	0.061	0.061	0.061	0.061	0.061	0.061	
TRIAL (COL/MCD DEC)	0.061	0.067	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
NET (COL/MCD DEC)	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
REPEAT (COL/MCD DEC)	1.000	1.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.048	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.048	0.065	0.063	0.056	0.054	0.054	0.054	0.054	0.054	0.054	
GAIN (% OF POP DEC)	0.054	0.063	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.048	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.048	0.065	0.063	0.056	0.054	0.054	0.054	0.054	0.054	0.054	
TRIAL (% OF POP DEC)	0.054	0.063	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.190	0.100	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.190	0.161	0.156	0.167	0.162	0.162	0.162	0.162	0.162	0.162	
NET (% OF POP DEC)	0.162	0.125	0.167	0.200	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.143	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.143	0.097	0.094	0.111	0.108	0.108	0.108	0.108	0.108	0.108	
REPEAT (% OF POP DEC)	0.108	0.063	0.167	0.200	0.000	0.000	0.000	0.000	0.000	0.000	

FOLGERS REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	0.	0.	0.	0.	2.	0.	0.	0.	0.	0.	2.
X -----> O	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
X -----> X	0.	0.	1.	0.	0.	2.	0.	0.	1.	0.	0.	4.
O -----> O	0.	0.	3.	1.	6.	11.	4.	0.	1.	0.	1.	27.
O <----> O	0.	0.	0.	0.	2.	2.	0.	0.	0.	0.	0.	4.
TOTAL	0.	0.	4.	1.	8.	17.	4.	0.	2.	0.	1.	37.
TRIAL (COL/MCD REG)	0.000	0.000	0.000	0.000	0.000	0.133	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.000	0.000	0.000	0.000	0.074	0.065	0.065	0.063	0.063	0.061	
TRIAL (COL/MCD DEC)	0.061	0.061	0.061	0.067	0.069	0.095	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	
NET (COL/MCD DEC)	1.000	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	0.000	1.000	0.000	0.000	1.000	0.000	0.000	1.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
REPEAT (COL/MCD DEC)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000	0.000	
GAIN (% OF POP REG)	0.000	0.000	0.000	0.000	0.000	0.118	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	0.000	0.000	0.000	0.067	0.059	0.059	0.056	0.056	0.054	
GAIN (% OF POP DEC)	0.054	0.054	0.054	0.061	0.063	0.083	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.000	0.000	0.000	0.000	0.118	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.000	0.000	0.000	0.067	0.059	0.059	0.056	0.056	0.054	
TRIAL (% OF POP DEC)	0.054	0.054	0.054	0.061	0.063	0.083	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.000	0.000	0.250	0.000	0.000	0.235	0.000	0.000	0.500	0.000	0.000	
NET (% OF POP ASC)	0.000	0.000	0.250	0.200	0.077	0.167	0.147	0.147	0.167	0.167	0.162	
NET (% OF POP DEC)	0.162	0.162	0.162	0.152	0.156	0.208	0.143	0.333	0.333	0.000	0.000	
REPEAT (% OF POP REG)	0.000	0.000	0.250	0.000	0.000	0.118	0.000	0.000	0.500	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.000	0.250	0.200	0.077	0.100	0.088	0.088	0.111	0.111	0.108	
REPEAT (% OF POP DEC)	0.108	0.108	0.108	0.091	0.094	0.125	0.143	0.333	0.333	0.000	0.000	

FOLGERS REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	0.	0.	0.	0.	1.	1.	0.	0.	0.	0.	2.
X -----> O	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
X -----> X	0.	0.	1.	0.	0.	2.	0.	0.	1.	0.	0.	4.
O -----> O	0.	0.	1.	2.	2.	15.	5.	0.	1.	0.	1.	27.
O <----> O	0.	0.	0.	0.	1.	3.	0.	0.	0.	0.	0.	4.
TOTAL	0.	0.	2.	2.	3.	21.	6.	0.	2.	0.	1.	37.
TRIAL (COL/MCD REG)	0.000	0.000	0.000	0.000	0.000	0.053	0.167	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.000	0.000	0.000	0.000	0.040	0.065	0.065	0.063	0.063	0.061	
TRIAL (COL/MCD DEC)	0.061	0.061	0.061	0.063	0.067	0.074	0.125	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.000	0.000	0.000	0.000	0.000	1.000	1.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	
NET (COL/MCD DEC)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	0.000	1.000	0.000	0.000	1.000	0.000	0.000	1.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
REPEAT (COL/MCD DEC)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	0.000	0.000	0.000	0.048	0.167	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	0.000	0.000	0.000	0.036	0.059	0.059	0.056	0.056	0.054	
GAIN (% OF POP DEC)	0.054	0.054	0.054	0.057	0.061	0.067	0.111	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.000	0.000	0.000	0.000	0.048	0.167	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.000	0.000	0.000	0.036	0.059	0.059	0.056	0.056	0.054	
TRIAL (% OF POP DEC)	0.054	0.054	0.054	0.057	0.061	0.067	0.111	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.000	0.000	0.500	0.000	0.000	0.143	0.167	0.000	0.500	0.000	0.000	
NET (% OF POP ASC)	0.000	0.000	0.500	0.250	0.143	0.143	0.147	0.147	0.167	0.167	0.162	
NET (% OF POP DEC)	0.162	0.162	0.162	0.143	0.152	0.167	0.222	0.333	0.333	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.000	0.000	0.500	0.000	0.000	0.095	0.000	0.000	0.500	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.000	0.500	0.250	0.143	0.107	0.088	0.088	0.111	0.111	0.108	
REPEAT (% OF POP DEC)	0.108	0.108	0.108	0.086	0.091	0.100	0.111	0.333	0.333	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

FOLGERS REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	1.	0.	0.	0.	0.	1.	0.	0.	0.	0.	2.
X -----> O	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
X -----> X	3.	0.	0.	0.	0.	0.	0.	0.	0.	1.	4.
O -----> O	19.	0.	1.	0.	0.	2.	0.	0.	0.	5.	27.
O <----> O	4.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.
TOTAL	27.	0.	1.	0.	0.	3.	0.	0.	0.	6.	37.
TRIAL (COL/MCD REG)	0.042	0.000	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.042	0.042	0.040	0.040	0.040	0.071	0.071	0.071	0.071	0.061	
TRIAL (COL/MCD DEC)	0.061	0.111	0.111	0.125	0.125	0.125	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	1.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
NET (COL/MCD DEC)	1.000	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	
REPEAT (COL/MCD ASC)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
REPEAT (COL/MCD DEC)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.037	0.000	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.037	0.037	0.036	0.036	0.036	0.065	0.065	0.065	0.065	0.054	
GAIN (% OF POP DEC)	0.054	0.100	0.100	0.111	0.111	0.111	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.037	0.000	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.037	0.037	0.036	0.036	0.036	0.065	0.065	0.065	0.065	0.054	
TRIAL (% OF POP DEC)	0.054	0.100	0.100	0.111	0.111	0.111	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.148	0.000	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.167	
NET (% OF POP ASC)	0.148	0.148	0.143	0.143	0.143	0.161	0.161	0.161	0.161	0.162	
NET (% OF POP DEC)	0.162	0.200	0.200	0.222	0.222	0.222	0.167	0.167	0.167	0.167	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.111	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.167	
REPEAT (% OF POP ASC)	0.111	0.111	0.107	0.107	0.107	0.097	0.097	0.097	0.097	0.108	
REPEAT (% OF POP DEC)	0.108	0.100	0.100	0.111	0.111	0.111	0.167	0.167	0.167	0.167	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

FOLGERS REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

SHARE OF TRANSACTIONS = 0.154
SHARE OF EXPOSURES = 0.378

SWITCHING TOWARD AND CCUPON USAGE = 0
SWITCHING AWAY AND COUPON USAGE = 0
LOYAY TO TEST AND COUPON USAGE = 0
OTHER SWITCHING AND COUPON USAGE = 0
LOYAL TO OTHER AND COUPON USAGE = 0

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	6.	4.	0.	4.	0.	1.	0.	0.	0.	0.	15.
X -----> O	5.	6.	4.	1.	0.	0.	0.	0.	0.	0.	16.
X -----> X	13.	5.	2.	2.	1.	0.	1.	0.	0.	0.	24.
O -----> O	75.	43.	31.	15.	11.	3.	0.	3.	1.	2.	184.
O <----> O	6.	5.	1.	3.	1.	1.	3.	0.	0.	0.	20.
TOTAL	105.	63.	38.	25.	13.	5.	4.	3.	1.	2.	259.
TRIAL (COL/MCD REG)	0.069	0.077	0.000	0.182	0.000	0.200	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.069	0.072	0.058	0.073	0.068	0.071	0.070	0.069	0.069	0.068	
TRIAL (COL/MCD DEC)	0.068	0.068	0.063	0.104	0.038	0.071	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.545	0.400	0.000	0.800	0.000	1.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.545	0.476	0.400	0.467	0.467	0.484	0.484	0.484	0.484	0.484	
NET (COL/MCD DEC)	0.484	0.450	0.500	0.833	1.000	1.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.722	0.455	0.333	0.667	1.000	0.000	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.722	0.621	0.571	0.579	0.590	0.590	0.600	0.600	0.600	0.600	
REPEAT (COL/MCD DEC)	0.600	0.500	0.545	0.800	1.000	1.000	1.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.010	-0.032	-0.105	0.120	0.000	0.200	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.010	-0.006	-0.024	-0.009	-0.008	-0.004	-0.004	-0.004	-0.004	-0.004	
GAIN (% OF POP DEC)	-0.004	-0.013	0.000	0.075	0.036	0.067	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.057	0.063	0.000	0.160	0.000	0.200	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.057	0.060	0.049	0.061	0.057	0.060	0.059	0.059	0.058	0.058	
TRIAL (% OF POP DEC)	0.058	0.058	0.055	0.094	0.036	0.067	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.181	0.143	0.053	0.240	0.077	0.200	0.250	0.000	0.000	0.000	
NET (% OF POP ASC)	0.181	0.167	0.146	0.156	0.152	0.153	0.154	0.152	0.152	0.151	
NET (% OF POP DEC)	0.151	0.130	0.121	0.170	0.107	0.133	0.100	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.124	0.079	0.053	0.080	0.077	0.000	0.250	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.124	0.107	0.097	0.095	0.094	0.092	0.095	0.094	0.093	0.093	
REPEAT (% OF POP DEC)	0.093	0.071	0.066	0.075	0.071	0.067	0.100	0.000	0.000	0.000	

FOLGERS REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
0 -----> X	9.	5.	1.	0.	0.	0.	0.	0.	0.	0.	15.
X -----> 0	9.	5.	1.	1.	0.	0.	0.	0.	0.	0.	16.
X -----> X	19.	3.	2.	0.	0.	0.	0.	0.	0.	0.	24.
0 -----> 0	121.	37.	15.	5.	5.	1.	0.	0.	0.	0.	184.
0 <----> 0	15.	1.	1.	1.	0.	2.	0.	0.	0.	0.	20.
TOTAL	173.	51.	20.	7.	5.	3.	0.	0.	0.	0.	259.
TRIAL (COL/MCD REG)	0.062	0.116	0.059	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.062	0.074	0.073	0.071	0.069	0.068	0.068	0.068	0.068	0.068	
TRIAL (COL/MCD DEC)	0.068	0.081	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.527	-0.862	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.500	0.500	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.500	0.500	0.500	0.484	0.484	0.484	0.484	0.484	0.484	0.484	
NET (COL/MCD DEC)	0.484	0.462	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.679	0.375	0.667	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.679	0.611	0.615	0.600	0.600	0.600	0.600	0.600	0.600	0.600	
REPEAT (COL/MCD DEC)	0.600	0.417	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	0.000	-0.143	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	0.000	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	
GAIN (% OF POP DEC)	-0.004	-0.012	-0.029	-0.067	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.052	0.098	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.052	0.063	0.061	0.060	0.059	0.058	0.058	0.058	0.058	0.058	
TRIAL (% OF POP DEC)	0.058	0.070	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.576	-0.799	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.162	0.157	0.150	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.162	0.161	0.160	0.155	0.152	0.151	0.151	0.151	0.151	0.151	
NET (% OF POP DEC)	0.151	0.128	0.086	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.719	-1.154	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.110	0.059	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.110	0.098	0.098	0.096	0.094	0.093	0.093	0.093	0.093	0.093	
REPEAT (% OF POP DEC)	0.093	0.058	0.057	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.351	-0.779	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

FOLGERS REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	7.	4.	3.	0.	1.	0.	0.	0.	0.	0.	15.
X -----> O	9.	7.	0.	0.	0.	0.	0.	0.	0.	0.	16.
X -----> X	15.	4.	3.	0.	2.	0.	0.	0.	0.	0.	24.
O -----> O	113.	30.	24.	9.	3.	2.	0.	1.	1.	1.	184.
O <----> O	9.	6.	1.	1.	1.	0.	2.	0.	0.	0.	20.
TOTAL	153.	51.	31.	10.	7.	2.	2.	1.	1.	1.	259.
TRIAL (COL/MCD REG)	0.054	0.100	0.107	0.000	0.200	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.054	0.065	0.071	0.068	0.071	0.070	0.069	0.069	0.069	0.068	
TRIAL (COL/MCD DEC)	0.068	0.089	0.080	0.045	0.083	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.438	0.364	1.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.438	0.407	0.467	0.467	0.484	0.484	0.484	0.484	0.484	0.484	
NET (COL/MCD DEC)	0.484	0.533	1.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.625	0.364	1.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.625	0.543	0.579	0.579	0.600	0.600	0.600	0.600	0.600	0.600	
REPEAT (COL/MCD DEC)	0.600	0.563	1.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	-0.013	-0.059	0.097	0.000	0.143	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.013	-0.025	-0.009	-0.008	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	
GAIN (% OF POP DEC)	-0.004	0.009	0.073	0.042	0.071	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.046	0.078	0.097	0.000	0.143	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.046	0.054	0.060	0.057	0.060	0.059	0.059	0.058	0.058	0.058	
TRIAL (% OF POP DEC)	0.058	0.075	0.073	0.042	0.071	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.144	0.157	0.194	0.000	0.429	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.144	0.147	0.153	0.147	0.155	0.154	0.152	0.152	0.151	0.151	
NET (% OF POP DEC)	0.151	0.160	0.164	0.125	0.214	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.098	0.078	0.097	0.000	0.286	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.098	0.093	0.094	0.090	0.095	0.094	0.094	0.093	0.093	0.093	
REPEAT (% OF POP DEC)	0.093	0.085	0.091	0.083	0.143	0.000	0.000	0.000	0.000	0.000	

FOLGERS REGULAR COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	0.	1.	0.	6.	6.	2.	0.	0.	0.	0.	15.
X -----> O	0.	0.	0.	0.	4.	8.	2.	1.	1.	0.	0.	16.
X -----> X	0.	1.	0.	2.	6.	13.	1.	1.	0.	0.	0.	24.
O -----> O	4.	2.	7.	18.	26.	83.	26.	11.	3.	4.	0.	184.
O <----> O	2.	1.	1.	1.	4.	6.	2.	0.	1.	1.	1.	20.
TOTAL	6.	4.	9.	21.	46.	116.	33.	13.	5.	5.	1.	259.
TRIAL (COL/MCD REG)	0.000	0.000	0.111	0.000	0.167	0.063	0.067	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.000	0.056	0.027	0.096	0.077	0.076	0.072	0.070	0.069	0.068	
TRIAL (COL/MCD DEC)	0.068	0.070	0.071	0.070	0.077	0.055	0.039	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.000	0.000	1.000	0.000	0.600	0.429	0.500	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.000	1.000	1.000	0.636	0.520	0.517	0.500	0.484	0.484	0.484	
NET (COL/MCD DEC)	0.484	0.484	0.484	0.467	0.467	0.400	0.333	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	1.000	0.000	1.000	0.600	0.619	0.333	0.500	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	1.000	1.000	1.000	0.692	0.647	0.622	0.615	0.600	0.600	0.600	
REPEAT (COL/MCD DEC)	0.600	0.600	0.590	0.590	0.568	0.556	0.333	0.333	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.000	0.000	0.111	0.000	0.043	-0.017	0.000	-0.077	-0.200	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	0.053	0.025	0.035	0.005	0.004	0.000	-0.004	-0.004	-0.004	
GAIN (% OF POP DEC)	-0.004	-0.004	-0.004	-0.008	-0.009	-0.023	-0.035	-0.083	-0.091	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.000	0.111	0.000	0.130	0.052	0.061	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.053	0.025	0.081	0.064	0.064	0.060	0.059	0.058	0.058	
TRIAL (% OF POP DEC)	0.058	0.059	0.060	0.058	0.064	0.046	0.035	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.000	0.250	0.111	0.095	0.261	0.164	0.091	0.077	0.000	0.000	0.000	
NET (% OF POP ASC)	0.000	0.100	0.105	0.100	0.186	0.173	0.162	0.157	0.154	0.151	0.151	
NET (% OF POP DEC)	0.151	0.154	0.153	0.154	0.160	0.133	0.070	0.042	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.000	0.250	0.000	0.095	0.130	0.112	0.030	0.077	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.100	0.053	0.075	0.105	0.109	0.098	0.097	0.095	0.093	0.093	
REPEAT (% OF POP DEC)	0.093	0.095	0.092	0.096	0.096	0.087	0.035	0.042	0.000	0.000	0.000	

FOLGERS REGULAR COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	0.	0.	1.	2.	9.	2.	1.	0.	0.	0.	15.
X -----> O	0.	0.	0.	0.	2.	7.	5.	1.	1.	0.	0.	16.
X -----> X	0.	1.	0.	2.	2.	17.	1.	1.	0.	0.	0.	24.
O -----> O	2.	1.	5.	11.	21.	94.	30.	11.	5.	4.	0.	184.
O <----> O	0.	1.	1.	2.	1.	10.	2.	0.	1.	0.	2.	20.
TOTAL	2.	3.	6.	16.	28.	137.	40.	14.	7.	4.	2.	259.
TRIAL (COL/MCD REG)	0.000	0.000	0.000	0.071	0.083	0.080	0.059	0.083	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.000	0.000	0.042	0.063	0.075	0.072	0.072	0.070	0.069	0.068	
TRIAL (COL/MCD DEC)	0.068	0.069	0.070	0.072	0.072	0.070	0.052	0.042	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.551	0.186	-0.581	-0.529	0.000	0.000	0.000		
NET (COL/MCD REG)	0.000	0.000	0.000	1.000	0.500	0.563	0.286	0.500	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.000	0.000	1.000	0.600	0.571	0.500	0.500	0.484	0.484	0.484	
NET (COL/MCD DEC)	0.484	0.484	0.484	0.484	0.467	0.462	0.300	0.333	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	1.000	0.000	1.000	0.500	0.708	0.167	0.500	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	1.000	1.000	1.000	0.714	0.710	0.622	0.615	0.600	0.600	0.600	
REPEAT (COL/MCD DEC)	0.600	0.600	0.590	0.590	0.568	0.576	0.222	0.333	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	0.000	0.063	0.000	0.015	-0.075	0.000	-0.143	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	0.000	0.037	0.018	0.016	0.000	0.000	-0.004	-0.004	-0.004	
GAIN (% OF POP DEC)	-0.004	-0.004	-0.004	-0.004	-0.009	-0.010	-0.060	-0.037	-0.077	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.000	0.000	0.063	0.071	0.066	0.050	0.071	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.000	0.037	0.055	0.063	0.060	0.061	0.059	0.058	0.058	
TRIAL (% OF POP DEC)	0.058	0.058	0.059	0.060	0.060	0.059	0.045	0.037	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.490	0.120	-0.522	-0.455	0.000	0.000	0.000		
NET (% OF POP REG)	0.000	0.333	0.000	0.188	0.143	0.190	0.075	0.143	0.000	0.000	0.000	
NET (% OF POP ASC)	0.000	0.200	0.091	0.148	0.145	0.177	0.159	0.159	0.154	0.152	0.151	
NET (% OF POP DEC)	0.151	0.152	0.150	0.153	0.151	0.152	0.075	0.074	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.037	0.119	-1.967	-1.089	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.000	0.333	0.000	0.125	0.071	0.124	0.025	0.071	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.200	0.091	0.111	0.091	0.115	0.099	0.098	0.095	0.093	0.093	
REPEAT (% OF POP DEC)	0.093	0.093	0.091	0.093	0.091	0.093	0.030	0.037	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	-0.349	0.050	-2.003	-0.976	0.000	0.000	0.000		

FOLGERS REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	9.	0.	1.	3.	0.	0.	1.	0.	0.	1.	15.
X -----> O	9.	0.	0.	0.	0.	3.	0.	0.	0.	4.	16.
X -----> X	19.	0.	0.	3.	0.	0.	0.	0.	0.	2.	24.
O -----> O	121.	2.	4.	5.	0.	9.	4.	1.	0.	38.	184.
O <----> O	15.	0.	0.	0.	0.	0.	1.	0.	1.	3.	20.
TOTAL	173.	2.	5.	11.	0.	12.	6.	1.	1.	48.	259.
TRIAL (COL/MCD REG)	0.062	0.000	0.200	0.375	0.000	0.000	0.167	0.000	0.000	0.024	
TRIAL (COL/MCD ASC)	0.062	0.061	0.066	0.081	0.081	0.077	0.080	0.080	0.079	0.068	
TRIAL (COL/MCD DEC)	0.068	0.081	0.083	0.075	0.034	0.034	0.040	0.023	0.023	0.024	
T STATISTICS	0.527	0.608	0.239	-1.231	-1.231	-0.908	-1.344	-1.310	-1.275		
NET (COL/MCD REG)	0.500	0.000	1.000	1.000	0.000	0.000	1.000	0.000	0.000	0.200	
NET (COL/MCD ASC)	0.500	0.500	0.526	0.591	0.591	0.520	0.538	0.538	0.538	0.484	
NET (COL/MCD DEC)	0.484	0.462	0.462	0.417	0.222	0.222	0.333	0.200	0.200	0.200	
REPEAT (COL/MCD REG)	0.679	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.333	
REPEAT (COL/MCD ASC)	0.679	0.679	0.679	0.710	0.710	0.647	0.647	0.647	0.647	0.600	
REPEAT (COL/MCD DEC)	0.600	0.417	0.417	0.417	0.222	0.222	0.333	0.333	0.333	0.333	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	0.200	0.273	0.000	-0.250	0.167	0.000	0.000	-0.063	
GAIN (% OF POP ASC)	0.000	0.000	0.006	0.021	0.021	0.005	0.010	0.010	0.009	-0.004	
GAIN (% OF POP DEC)	-0.004	-0.012	-0.012	-0.025	-0.074	-0.074	-0.036	-0.060	-0.061	-0.063	
TRIAL (% OF POP REG)	0.052	0.000	0.200	0.273	0.000	0.000	0.167	0.000	0.000	0.021	
TRIAL (% OF POP ASC)	0.052	0.051	0.056	0.068	0.068	0.064	0.067	0.067	0.066	0.058	
TRIAL (% OF POP DEC)	0.058	0.070	0.071	0.063	0.029	0.029	0.036	0.020	0.020	0.021	
T STATISTICS	0.576	0.645	0.245	-1.172	-1.172	-0.803	-1.278	-1.248	-1.219		
NET (% OF POP REG)	0.162	0.000	0.200	0.545	0.000	0.000	0.167	0.000	0.000	0.063	
NET (% OF POP ASC)	0.162	0.160	0.161	0.183	0.183	0.172	0.172	0.171	0.171	0.151	
NET (% OF POP DEC)	0.151	0.128	0.131	0.127	0.059	0.059	0.071	0.060	0.061	0.063	
T STATISTICS	-0.719	-0.612	-0.715	-2.464	-2.464	-1.871	-1.994	-1.942	-1.890		
REPEAT (% OF POP REG)	0.110	0.000	0.000	0.273	0.000	0.000	0.000	0.000	0.000	0.042	
REPEAT (% OF POP ASC)	0.110	0.109	0.106	0.115	0.115	0.108	0.105	0.105	0.104	0.093	
REPEAT (% OF POP DEC)	0.093	0.058	0.060	0.063	0.029	0.029	0.036	0.040	0.041	0.042	
T STATISTICS	-1.351	-1.274	-1.080	-2.095	-2.095	-1.660	-1.430	-1.390	-1.350		

MAXWELL HOUSE REGULAR COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS

SHARE OF TRANSACTIONS = 0.265
SHARE OF EXPOSURES = 0.273

SWITCHING TOWARD AND COUPON USAGE = 4
SWITCHING AWAY AND COUPON USAGE = 7
LOYAY TO TEST AND COUPON USAGE = 2
OTHER SWITCHING AND COUPON USAGE = 21
LOYAL TO OTHER AND COUPON USAGE = 3

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	15.	15.	4.	4.	2.	0.	0.	0.	0.	0.	40.
X -----> O	15.	7.	10.	5.	2.	2.	0.	1.	1.	0.	43.
X -----> X	19.	7.	9.	3.	0.	0.	2.	2.	0.	1.	43.
O -----> O	61.	43.	17.	15.	9.	3.	1.	1.	0.	1.	151.
O <----> O	10.	2.	1.	3.	0.	1.	2.	0.	0.	0.	19.
TOTAL	120.	74.	41.	30.	13.	6.	5.	4.	1.	2.	296.
TRIAL (COL/MCD REG)	0.174	0.250	0.182	0.182	0.182	0.000	0.000	0.000	0.000	0.000	
TRIAL (CCL/MCD ASC)	0.174	0.205	0.202	0.200	0.199	0.195	0.192	0.191	0.191	0.190	
TRIAL (COL/MCD DEC)	0.190	0.202	0.156	0.143	0.100	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.500	0.682	0.286	0.444	0.500	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.500	0.577	0.515	0.507	0.506	0.494	0.494	0.488	0.482	0.482	
NET (COL/MCD DEC)	0.482	0.472	0.323	0.353	0.250	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.559	0.500	0.474	0.375	0.000	0.000	1.000	0.667	0.000	1.000	
REPEAT (COL/MCD ASC)	0.559	0.542	0.522	0.507	0.494	0.481	0.494	0.500	0.494	0.500	
REPEAT (COL/MCD DEC)	0.500	0.462	0.447	0.421	0.455	0.556	0.714	0.600	0.500	1.000	
GAIN (% OF POP REG)	0.000	0.108	-0.146	-0.033	0.000	-0.333	0.000	-0.250	-1.000	0.000	
GAIN (% OF POP ASC)	0.000	0.041	0.009	0.004	0.004	-0.004	-0.003	-0.007	-0.010	-0.010	
GAIN (% OF POP DEC)	-0.010	-0.017	-0.108	-0.082	-0.129	-0.222	-0.167	-0.286	-0.333	0.000	
TRIAL (% OF POP REG)	0.125	0.203	0.098	0.133	0.154	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.125	0.155	0.145	0.143	0.144	0.141	0.138	0.137	0.136	0.135	
TRIAL (% OF POP DEC)	0.135	0.142	0.098	0.098	0.065	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.283	0.297	0.317	0.233	0.154-	0.000	0.400	0.500	0.000	0.500	
NET (% CF POP ASC)	0.283	0.289	0.294	0.287	0.281	0.275	0.277	0.280	0.279	0.280	
NET (% OF POP DEC)	0.280	0.278	0.265	0.230	0.226	0.278	0.417	0.429	0.333	0.500	
REPEAT (% OF POP REG)	0.158	0.095	0.220	0.100	0.000	0.000	0.400	0.500	0.000	0.500	
REPEAT (% OF POP ASC)	0.158	0.134	0.149	0.143	0.137	0.134	0.138	0.143	0.143	0.145	
REPEAT (% OF POP DEC)	0.145	0.136	0.167	0.131	0.161	0.278	0.417	0.429	0.333	0.500	

MAXWELL HOUSE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	32.	8.	0.	0.	0.	0.	0.	0.	0.	0.	40.
X -----> O	36.	3.	3.	1.	0.	0.	0.	0.	0.	0.	43.
X -----> X	33.	5.	4.	0.	0.	0.	1.	0.	0.	0.	43.
O -----> O	124.	15.	6.	4.	1.	0.	0.	0.	1.	0.	151.
O <----> O	16.	1.	0.	1.	1.	0.	0.	0.	0.	0.	19.
TOTAL	241.	32.	13.	6.	2.	0.	1.	0.	1.	0.	296.
TRIAL (COL/MCD REG)	0.186	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.186	0.204	0.198	0.193	0.191	0.191	0.191	0.191	0.190	0.190	
TRIAL (COL/MCD DEC)	0.190	0.211	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.348	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.471	0.727	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.471	0.506	0.488	0.482	0.482	0.482	0.482	0.482	0.482	0.482	
NET (COL/MCD DEC)	0.482	0.533	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.478	0.625	0.571	0.000	0.000	0.000	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.478	0.494	0.500	0.494	0.494	0.494	0.500	0.500	0.500	0.500	
REPEAT (COL/MCD DEC)	0.500	0.588	0.556	0.500	1.000	1.000	1.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.017	0.156	-0.231	-0.167	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.017	0.004	-0.007	-0.010	-0.010	-0.010	-0.010	-0.010	-0.010	-0.010	
GAIN (% OF POP DEC)	-0.010	0.018	-0.174	-0.100	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.133	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.133	0.147	0.140	0.137	0.136	0.136	0.136	0.136	0.135	0.135	
TRIAL (% OF POP DEC)	0.135	0.145	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.248	-1.974	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.270	0.406	0.308	0.000	0.000	0.000	1.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.270	0.286	0.287	0.281	0.279	0.279	0.281	0.281	0.280	0.280	
NET (% OF POP DEC)	0.280	0.327	0.217	0.100	0.250	0.500	0.500	0.000	0.000	0.000	
T STATISTICS	0.858	-0.701	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.137	0.156	0.308	0.000	0.000	0.000	1.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.137	0.139	0.147	0.144	0.143	0.143	0.146	0.146	0.145	0.145	
REPEAT (% OF POP DEC)	0.145	0.182	0.217	0.100	0.250	0.500	0.500	0.000	0.000	0.000	
T STATISTICS	0.852	1.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

MAXWELL HOUSE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	21.	9.	5.	4.	1.	0.	0.	0.	0.	0.	40.
X -----> O	18.	7.	7.	5.	4.	1.	1.	0.	0.	0.	43.
X -----> X	20.	11.	8.	0.	0.	2.	1.	0.	0.	1.	43.
O -----> O	74.	42.	16.	11.	6.	0.	1.	1.	0.	0.	151.
O <----> O	10.	2.	3.	3.	0.	1.	0.	0.	0.	0.	19.
TOTAL	143.	71.	39.	23.	11.	4.	3.	1.	0.	1.	296.
TRIAL (COL/MCD REG)	0.200	0.170	0.208	0.222	0.143	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.200	0.190	0.192	0.195	0.193	0.192	0.191	0.190	0.190	0.190	
TRIAL (COL/MCD DEC)	0.190	0.181	0.192	0.179	0.100	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.538	0.563	0.417	0.444	0.200	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.538	0.545	0.522	0.513	0.494	0.488	0.482	0.482	0.482	0.482	
NET (COL/MCD DEC)	0.482	0.432	0.357	0.313	0.143	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.526	0.611	0.533	0.000	0.000	0.667	0.500	0.000	0.000	1.000	
REPEAT (COL/MCD ASC)	0.526	0.554	0.549	0.513	0.487	0.494	0.494	0.494	0.494	0.500	
REPEAT (COL/MCD DEC)	0.500	0.479	0.400	0.267	0.400	0.667	0.667	1.000	1.000	1.000	
GAIN (% OF POP REG)	0.021	0.028	-0.051	-0.043	-0.273	-0.250	-0.333	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.021	0.023	0.012	0.007	-0.003	-0.007	-0.010	-0.010	-0.010	-0.010	
GAIN (% OF POP DEC)	-0.010	-0.039	-0.098	-0.140	-0.250	-0.222	-0.200	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.147	0.127	0.128	0.174	0.091	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.147	0.140	0.138	0.141	0.139	0.137	0.136	0.136	0.136	0.135	
TRIAL (% OF POP DEC)	0.135	0.124	0.122	0.116	0.050	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.287	0.282	0.333	0.174	0.091	0.500	0.333	0.000	0.000	1.000	
NET (% OF POP ASC)	0.287	0.285	0.292	0.283	0.275	0.278	0.279	0.278	0.278	0.280	
NET (% OF POP DEC)	0.280	0.275	0.268	0.209	0.250	0.444	0.400	0.500	1.000	1.000	
REPEAT (% OF POP REG)	0.140	0.155	0.205	0.000	0.000	0.500	0.333	0.000	0.000	1.000	
REPEAT (% OF POP ASC)	0.140	0.145	0.154	0.141	0.136	0.141	0.143	0.142	0.142	0.145	
REPEAT (% OF POP DEC)	0.145	0.150	0.146	0.093	0.200	0.444	0.400	0.500	1.000	1.000	

MAXWELL HOUSE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	1.	3.	5.	10.	15.	6.	0.	0.	0.	0.	40.
X -----> O	1.	3.	6.	7.	7.	16.	1.	2.	0.	0.	0.	43.
X -----> X	2.	1.	1.	6.	9.	21.	1.	1.	0.	0.	1.	43.
O -----> O	2.	5.	9.	14.	39.	65.	10.	2.	3.	1.	1.	151.
O <----> O	1.	0.	2.	1.	3.	11.	0.	1.	0.	0.	0.	19.
TOTAL	6.	10.	21.	33.	68.	128.	18.	6.	3.	1.	2.	296.
TRIAL (COL/MCD REG)	0.000	0.167	0.214	0.250	0.192	0.165	0.375	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.111	0.174	0.209	0.200	0.183	0.198	0.195	0.192	0.191	0.190	
TRIAL (COL/MCD DEC)	0.190	0.193	0.194	0.193	0.186	0.183	0.250	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.000	0.250	0.333	0.417	0.588	0.484	0.857	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.200	0.286	0.346	0.442	0.459	0.494	0.482	0.482	0.482	0.482	
NET (COL/MCD DEC)	0.482	0.488	0.500	0.522	0.544	0.525	0.667	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.667	0.250	0.143	0.462	0.563	0.568	0.500	0.333	0.000	0.000	1.000	
REPEAT (COL/MCD ASC)	0.667	0.429	0.286	0.370	0.442	0.500	0.500	0.494	0.494	0.494	0.500	
REPEAT (COL/MCD DEC)	0.500	0.494	0.506	0.542	0.559	0.558	0.500	0.500	1.000	1.000	1.000	
GAIN (% OF POP REG)	-0.167	-0.200	-0.143	-0.061	0.044	-0.008	0.278	-0.333	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.167	-0.188	-0.162	-0.114	-0.036	-0.023	-0.004	-0.010	-0.010	-0.010	-0.010	
GAIN (% OF POP DEC)	-0.010	-0.007	0.000	0.012	0.022	0.013	0.100	-0.167	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.100	0.143	0.152	0.147	0.117	0.333	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.063	0.108	0.129	0.138	0.128	0.141	0.138	0.137	0.136	0.135	
TRIAL (% OF POP DEC)	0.135	0.138	0.139	0.139	0.137	0.133	0.200	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.333	0.200	0.190	0.333	0.279	0.281	0.389	0.167	0.000	0.000	0.500	
NET (% OF POP ASC)	0.333	0.250	0.216	0.271	0.275	0.278	0.285	0.283	0.280	0.279	0.280	
NET (% OF POP DEC)	0.280	0.279	0.282	0.290	0.283	0.285	0.300	0.167	0.167	0.333	0.500	
REPEAT (% OF POP REG)	0.333	0.100	0.048	0.182	0.132	0.164	0.056	0.167	0.000	0.000	0.500	
REPEAT (% OF POP ASC)	0.333	0.188	0.108	0.143	0.138	0.150	0.144	0.145	0.143	0.143	0.145	
REPEAT (% OF POP DEC)	0.145	0.141	0.143	0.151	0.146	0.152	0.100	0.167	0.167	0.333	0.500	

MAXWELL HOUSE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	1.	2.	4.	5.	22.	6.	0.	0.	0.	0.	40.
X -----> O	0.	1.	6.	6.	7.	19.	2.	2.	0.	0.	0.	43.
X -----> X	1.	0.	1.	4.	10.	24.	0.	2.	0.	0.	1.	43.
O -----> O	1.	4.	3.	13.	24.	85.	13.	2.	4.	1.	1.	151.
O <----> O	1.	0.	2.	1.	0.	13.	1.	1.	0.	0.	0.	19.
TOTAL	3.	6.	14.	28.	46.	163.	22.	7.	4.	1.	2.	296.
TRIAL (COL/MCD REG)	0.000	0.200	0.286	0.222	0.172	0.183	0.300	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.143	0.214	0.219	0.197	0.188	0.199	0.196	0.192	0.191	0.190	
TRIAL (COL/MCD DEC)	0.190	0.192	0.192	0.189	0.185	0.188	0.207	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	-0.442	-0.147	0.239	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.000	0.500	0.250	0.400	0.417	0.537	0.750	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.500	0.300	0.350	0.375	0.466	0.494	0.482	0.482	0.482	0.482	
NET (COL/MCD DEC)	0.482	0.482	0.481	0.507	0.524	0.549	0.600	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	0.000	0.143	0.400	0.588	0.558	0.000	0.500	0.000	0.000	1.000	
REPEAT (COL/MCD ASC)	1.000	0.500	0.222	0.316	0.444	0.506	0.494	0.494	0.494	0.494	0.500	
REPEAT (COL/MCD DEC)	0.500	0.494	0.500	0.532	0.552	0.540	0.429	0.600	1.000	1.000	1.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	-0.286	-0.071	-0.043	0.018	0.182	-0.286	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	-0.174	-0.118	-0.082	-0.019	-0.004	-0.010	-0.010	-0.010	-0.010	
GAIN (% OF POP DEC)	-0.010	-0.010	-0.010	0.004	0.012	0.025	0.056	-0.143	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.167	0.143	0.143	0.109	0.135	0.273	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.111	0.130	0.137	0.124	0.131	0.142	0.138	0.137	0.136	0.135	
TRIAL (% OF POP DEC)	0.135	0.137	0.136	0.136	0.135	0.141	0.167	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.069	-0.049	0.401	0.583	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.333	0.167	0.214	0.286	0.326	0.282	0.273	0.286	0.000	0.000	0.500	
NET (% OF POP ASC)	0.333	0.222	0.217	0.255	0.289	0.285	0.284	0.284	0.280	0.279	0.280	
NET (% OF POP DEC)	0.280	0.280	0.282	0.286	0.286	0.276	0.250	0.214	0.143	0.333	0.500	
T STATISTICS	0.000	0.000	0.700	0.446	-0.221	-0.428	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.333	0.000	0.071	0.143	0.217	0.147	0.000	0.286	0.000	0.000	0.500	
REPEAT (% OF POP ASC)	0.333	0.111	0.087	0.118	0.165	0.154	0.142	0.145	0.143	0.143	0.145	
REPEAT (% OF POP DEC)	0.145	0.143	0.146	0.150	0.151	0.136	0.083	0.214	0.143	0.333	0.500	
T STATISTICS	0.000	0.000	0.826	0.615	-0.670	-1.111	0.000	0.000	0.000	0.000		

MAXWELL HOUSE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	32.	0.	1.	1.	0.	0.	0.	0.	0.	6.	40.
X -----> O	36.	0.	2.	0.	1.	1.	0.	0.	0.	3.	43.
X -----> X	33.	2.	1.	2.	0.	2.	1.	0.	1.	1.	43.
O -----> O	124.	0.	2.	2.	2.	4.	2.	1.	1.	13.	151.
O <----> O	16.	0.	0.	1.	0.	1.	1.	0.	0.	0.	19.
TOTAL	241.	2.	6.	6.	3.	8.	4.	1.	2.	23.	296.
TRIAL (COL/MCD REG)	0.186	0.000	0.333	0.250	0.000	0.000	0.000	0.000	0.000	0.316	
TRIAL (COL/MCD ASC)	0.186	0.186	0.189	0.190	0.188	0.183	0.180	0.179	0.178	0.190	
TRIAL (COL/MCD DEC)	0.190	0.211	0.211	0.200	0.194	0.207	0.250	0.286	0.300	0.316	
T STATISTICS	0.348	0.348	0.157	0.047	0.243	0.789	1.172	1.311	0.000		
NET (COL/MCD REG)	0.471	0.000	0.333	1.000	0.000	0.000	0.000	0.000	0.000	0.667	
NET (COL/MCD ASC)	0.471	0.471	0.465	0.472	0.466	0.459	0.459	0.459	0.459	0.482	
NET (COL/MCD DEC)	0.482	0.533	0.533	0.583	0.545	0.600	0.667	0.667	0.667	0.667	
REPEAT (COL/MCD REG)	0.478	1.000	0.333	1.000	0.000	0.667	1.000	0.000	1.000	0.250	
REPEAT (COL/MCD ASC)	0.478	0.493	0.486	0.500	0.494	0.500	0.506	0.506	0.512	0.500	
REPEAT (COL/MCD DEC)	0.500	0.588	0.533	0.583	0.500	0.556	0.500	0.400	0.400	0.250	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.017	0.000	-0.167	0.167	-0.333	-0.125	0.000	0.000	0.000	0.130	
GAIN (% OF POP ASC)	-0.017	-0.016	-0.020	-0.016	-0.019	-0.023	-0.022	-0.022	-0.022	-0.010	
GAIN (% OF POP DEC)	-0.010	0.018	0.019	0.043	0.024	0.053	0.100	0.115	0.120	0.130	
TRIAL (% OF POP REG)	0.133	0.000	0.167	0.167	0.000	0.000	0.000	0.000	0.000	0.261	
TRIAL (% OF POP ASC)	0.133	0.132	0.133	0.133	0.132	0.128	0.126	0.125	0.125	0.135	
TRIAL (% OF POP DEC)	0.135	0.145	0.151	0.149	0.146	0.158	0.200	0.231	0.240	0.261	
T STATISTICS	0.248	0.372	0.302	0.226	0.440	1.096	1.493	1.603	1.837		
NET (% OF POP REG)	0.270	1.000	0.333	0.500	0.000	0.250	0.250	0.000	0.500	0.304	
NET (% OF POP ASC)	0.270	0.276	0.277	0.282	0.279	0.278	0.278	0.277	0.278	0.280	
NET (% OF POP DEC)	0.280	0.327	0.302	0.298	0.268	0.289	0.300	0.308	0.320	0.304	
T STATISTICS	0.858	0.384	0.291	-0.186	0.133	0.252	0.324	0.461	0.266		
REPEAT (% OF POP REG)	0.137	1.000	0.167	0.333	0.000	0.250	0.250	0.000	0.500	0.043	
REPEAT (% OF POP ASC)	0.137	0.144	0.145	0.149	0.147	0.150	0.152	0.151	0.154	0.145	
REPEAT (% OF POP DEC)	0.145	0.182	0.151	0.149	0.122	0.132	0.100	0.077	0.080	0.043	
T STATISTICS	0.852	0.129	0.078	-0.457	-0.257	-0.742	-1.036	-0.968	-1.443		

MAXWELL HOUSE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

SHARE OF TRANSACTIONS = 0.265
SHARE OF EXPOSURES = 0.273

SWITCHING TOWARD AND COUPON USAGE = 4
SWITCHING AWAY AND COUPON USAGE = 7
LOYAY TO TEST AND COUPON USAGE = 2
OTHER SWITCHING AND COUPON USAGE = 21
LOYAL TO OTHER AND COUPON USAGE = 3

	NUMBER OF CATEGORY EXPOSURES										
	0	1	2	3	4	5	6	7	8	9+	
O -----> X	2.	1.	0.	1.	0.	0.	0.	0.	0.	0.	4.
X -----> O	3.	2.	2.	0.	0.	0.	0.	0.	0.	0.	7.
X -----> X	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	2.
O -----> O	7.	7.	1.	3.	0.	1.	1.	1.	0.	0.	21.
O <----> O	2.	0.	0.	1.	0.	0.	0.	0.	0.	0.	3.
TOTAL	15.	11.	3.	5.	0.	1.	1.	1.	0.	0.	37.
TRIAL (COL/MCD REG)	0.182	0.125	0.000	0.200	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.182	0.158	0.150	0.160	0.160	0.154	0.148	0.143	0.143	0.143	
TRIAL (COL/MCD DEC)	0.143	0.118	0.111	0.125	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.400	0.333	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.400	0.375	0.300	0.364	0.364	0.364	0.364	0.364	0.364	0.364	
NET (COL/MCD DEC)	0.364	0.333	0.333	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.250	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.250	0.286	0.222	0.222	0.222	0.222	0.222	0.222	0.222	0.222	
REPEAT (COL/MCD DEC)	0.222	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	-0.067	-0.091	-0.667	0.200	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.067	-0.077	-0.138	-0.088	-0.088	-0.086	-0.083	-0.081	-0.081	-0.081	
GAIN (% OF POP DEC)	-0.081	-0.091	-0.091	0.125	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.133	0.091	0.000	0.200	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.133	0.115	0.103	0.118	0.118	0.114	0.111	0.108	0.108	0.108	
TRIAL (% OF POP DEC)	0.108	0.091	0.091	0.125	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.200	0.182	0.000	0.200	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.200	0.192	0.172	0.176	0.176	0.171	0.167	0.162	0.162	0.162	
NET (% OF POP DEC)	0.162	0.136	0.091	0.125	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.067	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.067	0.077	0.069	0.059	0.059	0.057	0.056	0.054	0.054	0.054	
REPEAT (% OF POP DEC)	0.054	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

MAXWELL HOUSE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	3.	1.	0.	0.	0.	0.	0.	0.	0.	0.	4.
X -----> O	5.	1.	1.	0.	0.	0.	0.	0.	0.	0.	7.
X -----> X	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.
O -----> O	18.	0.	2.	1.	0.	0.	0.	0.	0.	0.	21.
O <----> O	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.
TOTAL	31.	2.	3.	1.	0.	0.	0.	0.	0.	0.	37.
TRIAL (COL/MCD REG)	0.125	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.125	0.160	0.148	0.143	0.143	0.143	0.143	0.143	0.143	0.143	
TRIAL (COL/MCD DEC)	0.143	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.375	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.375	0.400	0.364	0.364	0.364	0.364	0.364	0.364	0.364	0.364	
NET (COL/MCD DEC)	0.364	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.286	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.286	0.250	0.222	0.222	0.222	0.222	0.222	0.222	0.222	0.222	
REPEAT (COL/MCD DEC)	0.222	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.065	0.000	-0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.065	-0.061	-0.083	-0.081	-0.081	-0.081	-0.081	-0.081	-0.081	-0.081	
GAIN (% OF POP DEC)	-0.081	-0.167	-0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.097	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.097	0.121	0.111	0.108	0.108	0.108	0.108	0.108	0.108	0.108	
TRIAL (% OF POP DEC)	0.108	0.167	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.161	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.161	0.182	0.167	0.162	0.162	0.162	0.162	0.162	0.162	0.162	
NET (% OF POP DEC)	0.162	0.167	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.065	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.065	0.061	0.056	0.054	0.054	0.054	0.054	0.054	0.054	0.054	
REPEAT (% OF POP DEC)	0.054	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

MAXWELL HOUSE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	3.	0.	0.	1.	0.	0.	0.	0.	0.	0.	4.
X -----> O	5.	1.	1.	0.	0.	0.	0.	0.	0.	0.	7.
X -----> X	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	2.
O -----> O	8.	8.	1.	2.	0.	0.	1.	1.	0.	0.	21.
O <----> O	2.	0.	0.	1.	0.	0.	0.	0.	0.	0.	3.
TOTAL	19.	10.	2.	4.	0.	0.	1.	1.	0.	0.	37.
TRIAL (COL/MCD REG)	0.231	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.231	0.143	0.136	0.154	0.154	0.154	0.148	0.143	0.143	0.143	
TRIAL (COL/MCD DEC)	0.143	0.067	0.143	0.167	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.375	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.375	0.333	0.300	0.364	0.364	0.364	0.364	0.364	0.364	0.364	
NET (COL/MCD DEC)	0.364	0.333	0.500	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.167	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.167	0.250	0.222	0.222	0.222	0.222	0.222	0.222	0.222	0.222	
REPEAT (COL/MCD DEC)	0.222	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	-0.105	-0.100	-0.500	0.250	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.105	-0.103	-0.129	-0.086	-0.086	-0.086	-0.083	-0.081	-0.081	-0.081	
GAIN (% OF POP DEC)	-0.081	-0.056	0.000	0.167	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.158	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.158	0.103	0.097	0.114	0.114	0.114	0.111	0.108	0.108	0.108	
TRIAL (% OF POP DEC)	0.108	0.056	0.125	0.167	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.211	0.100	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% CF POP ASC)	0.211	0.172	0.161	0.171	0.171	0.171	0.167	0.162	0.162	0.162	
NET (% OF POP DEC)	0.162	0.111	0.125	0.167	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.053	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.053	0.069	0.065	0.057	0.057	0.057	0.056	0.054	0.054	0.054	
REPEAT (% OF POP DEC)	0.054	0.056	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

MAXWELL HOUSE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	0.	1.	0.	0.	2.	1.	0.	0.	0.	0.	4.
X -----> O	0.	0.	0.	1.	1.	3.	1.	1.	0.	0.	0.	7.
X -----> X	0.	0.	0.	0.	1.	1.	0.	0.	0.	0.	0.	2.
O -----> O	2.	0.	1.	1.	8.	7.	1.	0.	1.	0.	0.	21.
O <----> O	0.	0.	1.	0.	0.	2.	0.	0.	0.	0.	0.	3.
TOTAL	2.	0.	3.	2.	10.	15.	3.	1.	1.	0.	0.	37.
TRIAL (COL/MCD REG)	0.000	0.000	0.333	0.000	0.000	0.182	0.500	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.000	0.200	0.167	0.071	0.120	0.148	0.148	0.143	0.143	0.143	
TRIAL (COL/MCD DEC)	0.143	0.154	0.154	0.130	0.136	0.214	0.333	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.000	0.000	1.000	0.000	0.000	0.400	0.500	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.000	1.000	0.500	0.333	0.375	0.400	0.364	0.364	0.364	0.364	
NET (COL/MCD DEC)	0.364	0.364	0.364	0.300	0.333	0.375	0.333	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	0.000	0.000	0.000	0.500	0.250	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.000	0.000	0.000	0.333	0.286	0.250	0.222	0.222	0.222	0.222	
REPEAT (COL/MCD DEC)	0.222	0.222	0.222	0.222	0.250	0.167	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.000	0.000	0.333	-0.500	-0.100	-0.067	0.000	-1.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	0.200	0.000	-0.059	-0.063	-0.057	-0.083	-0.081	-0.081	-0.081	
GAIN (% OF POP DEC)	-0.081	-0.086	-0.086	-0.125	-0.100	-0.100	-0.200	-0.500	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.000	0.333	0.000	0.000	0.133	0.333	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.200	0.143	0.059	0.094	0.114	0.111	0.108	0.108	0.108	
TRIAL (% OF POP DEC)	0.108	0.114	0.114	0.094	0.100	0.150	0.200	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.000	0.000	0.333	0.000	0.100	0.200	0.333	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.000	0.000	0.200	0.143	0.118	0.156	0.171	0.167	0.162	0.162	0.162	
NET (% OF POP DEC)	0.162	0.171	0.171	0.156	0.167	0.200	0.200	0.000	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.000	0.000	0.000	0.000	0.100	0.067	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.000	0.000	0.000	0.059	0.063	0.057	0.056	0.054	0.054	0.054	
REPEAT (% OF POP DEC)	0.054	0.057	0.057	0.063	0.067	0.050	0.000	0.000	0.000	0.000	0.000	

MAXWELL HOUSE REGULAR COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	0.	1.	0.	0.	2.	1.	0.	0.	0.	0.	4.
X -----> O	0.	0.	0.	0.	1.	4.	1.	1.	0.	0.	0.	7.
X -----> X	0.	0.	0.	0.	1.	1.	0.	0.	0.	0.	0.	2.
O -----> O	1.	1.	1.	0.	5.	11.	1.	0.	1.	0.	0.	21.
O <----> O	0.	0.	1.	0.	0.	2.	0.	0.	0.	0.	0.	3.
TOTAL	1.	1.	3.	0.	7.	20.	3.	1.	1.	0.	0.	37.
TRIAL (COL/MCD REG)	0.000	0.000	0.333	0.000	0.000	0.133	0.500	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.000	0.200	0.200	0.100	0.120	0.148	0.148	0.143	0.143	0.143	
TRIAL (COL/MCD DEC)	0.143	0.148	0.154	0.130	0.130	0.167	0.333	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.000	0.000	1.000	0.000	0.000	0.333	0.500	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.000	1.000	1.000	0.500	0.375	0.400	0.364	0.364	0.364	0.364	
NET (COL/MCD DEC)	0.364	0.364	0.364	0.300	0.300	0.333	0.333	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	0.000	0.000	0.000	0.500	0.200	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.000	0.000	0.000	0.500	0.286	0.250	0.222	0.222	0.222	0.222	
REPEAT (COL/MCD DEC)	0.222	0.222	0.222	0.222	0.222	0.143	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	0.333	0.000	-0.143	-0.100	0.000	-1.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	0.200	0.200	0.000	-0.063	-0.057	-0.083	-0.081	-0.081	-0.081	
GAIN (% OF POP DEC)	-0.081	-0.083	-0.086	-0.125	-0.125	-0.120	-0.200	-0.500	0.000	0.000	0.000	
TRIAL (% CF POP REG)	0.000	0.000	0.333	0.000	0.000	0.100	0.333	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.200	0.200	0.083	0.094	0.114	0.111	0.1C8	0.108	0.108	
TRIAL (% OF POP DEC)	0.108	0.111	0.114	0.094	0.094	0.120	0.200	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.000	0.000	0.333	0.000	0.143	0.150	0.333	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.000	0.000	0.200	0.200	0.167	0.156	0.171	0.167	0.162	0.162	0.162	
NET (% OF POP DEC)	0.162	0.167	0.171	0.156	0.156	0.160	0.200	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.000	0.000	0.000	0.000	0.143	0.050	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.000	0.000	0.000	0.083	0.063	0.057	0.056	0.054	0.054	0.054	
REPEAT (% OF POP DEC)	0.054	0.056	0.057	0.063	0.063	0.040	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

MAXWELL HOUSE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	3.	0.	0.	0.	0.	0.	0.	0.	0.	1.	4.
X -----> O	5.	0.	0.	0.	0.	0.	0.	0.	0.	2.	7.
X -----> X	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.
O -----> O	18.	0.	0.	0.	1.	0.	1.	0.	0.	1.	21.
O <----> O	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.
TOTAL	31.	0.	0.	0.	1.	0.	1.	0.	0.	4.	37.
TRIAL (COL/MCD REG)	0.125	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	
TRIAL (COL/MCD ASC)	0.125	0.125	0.125	0.125	0.120	0.120	0.115	0.115	0.115	0.143	
TRIAL (COL/MCD DEC)	0.143	0.250	0.250	0.250	0.250	0.333	0.333	0.500	0.500	0.500	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	
NET (COL/MCD ASC)	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.364	
NET (COL/MCD DEC)	0.364	0.333	0.333	0.333	0.333	0.333	0.333	0.333	0.333	0.333	
REPEAT (COL/MCD REG)	0.286	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.286	0.286	0.286	0.286	0.286	0.286	0.286	0.286	0.286	0.222	
REPEAT (COL/MCD DEC)	0.222	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.065	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.250	
GAIN (% OF POP ASC)	-0.065	-0.065	-0.065	-0.065	-0.063	-0.063	-0.061	-0.061	-0.061	-0.081	
GAIN (% OF POP DEC)	-0.081	-0.167	-0.167	-0.167	-0.167	-0.200	-0.200	-0.250	-0.250	-0.250	
TRIAL (% OF POP REG)	0.097	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	
TRIAL (% OF POP ASC)	0.097	0.097	0.097	0.097	0.094	0.094	0.091	0.091	0.091	0.108	
TRIAL (% OF POP DEC)	0.108	0.167	0.167	0.167	0.167	0.200	0.200	0.250	0.250	0.250	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.161	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	
NET (% OF POP ASC)	0.161	0.161	0.161	0.161	0.156	0.156	0.152	0.152	0.152	0.162	
NET (% OF POP DEC)	0.162	0.167	0.167	0.167	0.167	0.200	0.200	0.250	0.250	0.250	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.065	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.065	0.065	0.065	0.065	0.063	0.063	0.061	0.061	0.061	0.054	
REPEAT (% OF POP DEC)	0.054	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

MAXWELL HOUSE REGULAR COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

SHARE OF TRANSACTIONS =   0.265
SHARE OF EXPOSURES   =   0.273

SWITCHING TOWARD AND COUPON USAGE =   0
SWITCHING AWAY AND COUPON USAGE   =   0
LOYAY TO TEST AND COUPON USAGE   =   0
OTHER SWITCHING AND COUPON USAGE =   0
LOYAL TO OTHER AND COUPON USAGE   =   0

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	13.	14.	4.	3.	2.	0.	0.	0.	0.	0.	36.
X -----> O	12.	5.	8.	5.	2.	2.	0.	1.	1.	0.	36.
X -----> X	18.	6.	9.	3.	0.	0.	2.	2.	0.	1.	41.
O -----> O	54.	36.	16.	12.	9.	2.	0.	0.	0.	1.	130.
O <----> O	8.	2.	1.	2.	0.	1.	2.	0.	0.	0.	16.
TOTAL	105.	63.	38.	25.	13.	5.	4.	3.	1.	2.	259.
TRIAL (COL/MCD REG)	0.173	0.269	0.190	0.176	0.182	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.173	0.213	0.209	0.206	0.205	0.201	0.199	0.199	0.199	0.198	
TRIAL (COL/MCD DEC)	0.198	0.215	0.164	0.147	0.118	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.520	0.737	0.333	0.375	0.500	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.520	0.614	0.554	0.531	0.529	0.514	0.514	0.507	0.500	0.500	
NET (COL/MCD DEC)	0.500	0.489	0.321	0.313	0.250	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.600	0.545	0.529	0.375	0.000	0.000	1.000	0.667	0.000	1.000	
REPEAT (COL/MCD ASC)	0.600	0.585	0.569	0.545	0.529	0.514	0.528	0.533	0.526	0.532	
REPEAT (COL/MCD DEC)	0.532	0.489	0.472	0.421	0.455	0.556	0.714	0.600	0.500	1.000	
GAIN (% OF POP REG)	0.010	0.143	-0.105	-0.080	0.000	-0.400	0.000	-0.333	-1.000	0.000	
GAIN (% OF POP ASC)	0.010	0.060	0.029	0.017	0.016	0.008	0.008	0.004	0.000	0.000	
GAIN (% OF POP DEC)	0.000	-0.006	-0.110	-0.113	-0.143	-0.267	-0.200	-0.333	-0.333	0.000	
TRIAL (% OF POP REG)	0.124	0.222	0.105	0.120	0.154	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.124	0.161	0.150	0.147	0.148	0.145	0.142	0.141	0.140	0.139	
TRIAL (% OF POP DEC)	0.139	0.149	0.099	0.094	0.071	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.295	0.317	0.342	0.240	0.154	0.000	0.500	0.667	0.000	0.500	
NET (% CF POP ASC)	0.295	0.304	0.311	0.303	0.295	0.289	0.292	0.297	0.296	0.297	
NET (% OF POP DEC)	0.297	0.299	0.286	0.245	0.250	0.333	0.500	0.500	0.333	0.500	
REPEAT (% OF POP REG)	0.171	0.095	0.237	0.120	0.000	0.000	0.500	0.667	0.000	0.500	
REPEAT (% OF POP ASC)	0.171	0.143	0.160	0.156	0.148	0.145	0.150	0.156	0.156	0.158	
REPEAT (% OF POP DEC)	0.158	0.149	0.187	0.151	0.179	0.333	0.500	0.500	0.333	0.500	

MAXWELL HOUSE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	18.	9.	5.	3.	1.	0.	0.	0.	0.	0.	36.
X -----> O	13.	6.	6.	5.	4.	1.	1.	0.	0.	0.	36.
X -----> X	19.	10.	8.	0.	0.	2.	1.	0.	0.	1.	41.
O -----> O	66.	34.	15.	9.	6.	0.	0.	0.	0.	0.	130.
O <----> O	8.	2.	3.	2.	0.	1.	0.	0.	0.	0.	16.
TOTAL	124.	61.	37.	19.	11.	4.	2.	0.	0.	1.	259.
TRIAL (COL/MCD REG)	0.196	0.200	0.217	0.214	0.143	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.196	0.197	0.200	0.201	0.199	0.198	0.198	0.198	0.198	0.198	
TRIAL (COL/MCD DEC)	0.198	0.200	0.200	0.182	0.125	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.581	0.600	0.455	0.375	0.200	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.581	0.587	0.561	0.538	0.514	0.507	0.500	0.500	0.500	0.500	
NET (COL/MCD DEC)	0.500	0.439	0.346	0.267	0.143	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.594	0.625	0.571	0.000	0.000	0.667	0.500	0.000	0.000	1.000	
REPEAT (COL/MCD ASC)	0.594	0.604	0.597	0.552	0.521	0.527	0.526	0.526	0.526	0.532	
REPEAT (COL/MCD DEC)	0.532	0.489	0.414	0.267	0.400	0.667	0.667	1.000	1.000	1.000	
GAIN (% OF POP REG)	0.040	0.049	-0.027	-0.105	-0.273	-0.250	-0.500	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.040	0.043	0.032	0.021	0.008	0.004	0.000	0.000	0.000	0.000	
GAIN (% OF POP DEC)	0.000	-0.037	-0.108	-0.189	-0.278	-0.286	-0.333	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.145	0.148	0.135	0.158	0.091	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.145	0.146	0.144	0.145	0.143	0.141	0.140	0.140	0.140	0.139	
TRIAL (% OF POP DEC)	0.139	0.133	0.122	0.108	0.056	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.298	0.311	0.351	0.158	0.091	0.500	0.500	0.000	0.000	1.000	
NET (% OF POP ASC)	0.298	0.303	0.311	0.299	0.290	0.293	0.295	0.295	0.295	0.297	
NET (% OF POP DEC)	0.297	0.296	0.284	0.216	0.278	0.571	0.667	1.000	1.000	1.000	
REPEAT (% OF POP REG)	0.153	0.164	0.216	0.000	0.000	0.500	0.500	0.000	0.000	1.000	
REPEAT (% OF POP ASC)	0.153	0.157	0.167	0.154	0.147	0.152	0.155	0.155	0.155	0.158	
REPEAT (% OF POP DEC)	0.158	0.163	0.162	0.108	0.222	0.571	0.667	1.000	1.000	1.000	

MAXWELL HOUSE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	1.	2.	5.	10.	13.	5.	0.	0.	0.	0.	36.
X -----> O	1.	3.	6.	6.	6.	13.	0.	1.	0.	0.	0.	36.
X -----> X	2.	1.	1.	6.	8.	20.	1.	1.	0.	0.	1.	41.
O -----> O	0.	5.	8.	13.	31.	58.	9.	2.	2.	1.	1.	130.
O <----> O	1.	0.	1.	1.	3.	9.	0.	1.	0.	0.	0.	16.
TOTAL	4.	10.	18.	31.	58.	113.	15.	5.	2.	1.	2.	259.
TRIAL (COL/MCD REG)	0.000	0.167	0.182	0.263	0.227	0.162	0.357	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.143	0.167	0.216	0.222	0.193	0.206	0.202	0.200	0.199	0.198	
TRIAL (COL/MCD DEC)	0.198	0.199	0.200	0.201	0.193	0.178	0.238	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.000	0.250	0.250	0.455	0.625	0.500	1.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.200	0.231	0.333	0.450	0.470	0.507	0.500	0.500	0.500	0.500	
NET (COL/MCD DEC)	0.500	0.507	0.522	0.559	0.583	0.563	0.833	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.667	0.250	0.143	0.500	0.571	0.606	1.000	0.500	0.000	0.000	1.000	
REPEAT (COL/MCD ASC)	0.667	0.429	0.286	0.385	0.450	0.521	0.527	0.526	0.526	0.526	0.532	
REPEAT (COL/MCD DEC)	0.532	0.527	0.543	0.587	0.608	0.622	0.750	0.667	1.000	1.000	1.000	
GAIN (% OF POP REG)	-0.250	-0.200	-0.222	-0.032	0.069	0.000	0.333	-0.200	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.250	-0.214	-0.219	-0.127	-0.033	-0.017	0.004	0.000	0.000	0.000	0.000	
GAIN (% OF POP DEC)	0.000	0.004	0.012	0.031	0.041	0.029	0.160	-0.100	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.100	0.111	0.161	0.172	0.115	0.333	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.071	0.094	0.127	0.149	0.132	0.145	0.142	0.141	0.140	0.139	
TRIAL (% OF POP DEC)	0.139	0.141	0.143	0.145	0.143	0.130	0.200	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.500	0.200	0.167	0.355	0.310	0.292	0.400	0.200	0.000	0.000	0.500	
NET (% OF POP ASC)	0.500	0.286	0.219	0.286	0.298	0.295	0.301	0.299	0.297	0.296	0.297	
NET (% OF POP DEC)	0.297	0.294	0.298	0.308	0.301	0.297	0.320	0.200	0.200	0.333	0.500	
REPEAT (% OF POP REG)	0.500	0.100	0.056	0.194	0.138	0.177	0.067	0.200	0.000	0.000	0.500	
REPEAT (% OF POP ASC)	0.500	0.214	0.125	0.159	0.149	0.162	0.157	0.157	0.156	0.156	0.158	
REPEAT (% OF POP DEC)	0.158	0.153	0.155	0.163	0.158	0.167	0.120	0.200	0.200	0.333	0.500	

MAXWELL HOUSE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	1.	1.	4.	5.	20.	5.	0.	0.	0.	0.	36.
X -----> O	0.	1.	6.	6.	6.	15.	1.	1.	0.	0.	0.	36.
X -----> X	1.	0.	1.	4.	9.	23.	0.	2.	0.	0.	1.	41.
O -----> O	0.	3.	2.	13.	19.	74.	12.	2.	3.	1.	1.	130.
O <----> O	1.	0.	1.	1.	0.	11.	1.	1.	0.	0.	0.	16.
TOTAL	2.	5.	11.	28.	39.	143.	19.	6.	3.	1.	2.	259.
TRIAL (COL/MCD REG)	0.000	0.250	0.250	0.222	0.208	0.190	0.278	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.200	0.222	0.222	0.216	0.199	0.207	0.203	0.200	0.199	0.198	
TRIAL (COL/MCD DEC)	0.198	0.199	0.198	0.197	0.194	0.191	0.192	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	-0.345	-0.377	-0.075	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.000	0.500	0.143	0.400	0.455	0.571	0.833	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.500	0.222	0.316	0.367	0.477	0.507	0.500	0.500	0.500	0.500	
NET (COL/MCD DEC)	0.500	0.500	0.500	0.540	0.566	0.595	0.714	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	0.000	0.143	0.400	0.600	0.605	0.000	0.667	0.000	0.000	1.000	
REPEAT (COL/MCD ASC)	1.000	0.500	0.222	0.316	0.441	0.528	0.521	0.526	0.526	0.526	0.532	
REPEAT (COL/MCD DEC)	0.532	0.526	0.533	0.574	0.603	0.605	0.600	0.750	1.000	1.000	1.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	-0.455	-0.071	-0.026	0.035	0.211	-0.167	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	-0.278	-0.152	-0.094	-0.013	0.004	0.000	0.000	0.000	0.000	
GAIN (% OF POP DEC)	0.000	0.000	0.000	0.021	0.033	0.046	0.097	-0.083	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.200	0.091	0.143	0.128	0.140	0.263	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.143	0.111	0.130	0.129	0.136	0.146	0.142	0.141	0.140	0.139	
TRIAL (% OF POP DEC)	0.139	0.140	0.139	0.141	0.141	0.144	0.161	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.185	0.311	0.377	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.500	0.200	0.182	0.286	0.359	0.301	0.263	0.333	0.000	0.000	0.500	
NET (% OF POP ASC)	0.500	0.286	0.222	0.261	0.306	0.303	0.300	0.300	0.297	0.296	0.297	
NET (% OF POP DEC)	0.297	0.296	0.298	0.303	0.305	0.293	0.258	0.250	0.167	0.333	0.500	
T STATISTICS	0.000	0.000	0.000	0.596	-0.211	-0.502	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.500	0.000	0.091	0.143	0.231	0.161	0.000	0.333	0.000	0.000	0.500	
REPEAT (% OF POP ASC)	0.500	0.143	0.111	0.130	0.176	0.167	0.154	0.158	0.156	0.156	0.158	
REPEAT (% OF POP DEC)	0.158	0.156	0.159	0.162	0.164	0.149	0.097	0.250	0.167	0.333	0.500	
T STATISTICS	0.000	0.000	0.000	0.571	-0.559	-0.985	0.000	0.000	0.000	0.000		

MAXWELL HOUSE REGULAR COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
0 -----> X	29.	0.	1.	1.	0.	0.	0.	0.	0.	5.	36.
X -----> 0	31.	0.	2.	0.	1.	1.	0.	0.	0.	1.	36.
X -----> X	31.	2.	1.	2.	0.	2.	1.	0.	1.	1.	41.
0 -----> 0	106.	0.	2.	2.	1.	4.	1.	1.	1.	12.	130.
0 <----> 0	13.	0.	0.	1.	0.	1.	1.	0.	0.	0.	16.
TOTAL	210.	2.	6.	6.	2.	8.	3.	1.	2.	19.	259.
TRIAL (COL/MCD REG)	0.196	0.000	0.333	0.250	0.000	0.000	0.000	0.000	0.000	0.294	
TRIAL (COL/MCD ASC)	0.196	0.196	0.199	0.200	0.199	0.193	0.190	0.189	0.188	0.198	
TRIAL (COL/MCD DEC)	0.198	0.206	0.206	0.194	0.185	0.192	0.238	0.263	0.278	0.294	
T STATISTICS	0.131	0.131	-0.065	-0.178	-0.076	0.493	0.000	0.000	0.000		
NET (COL/MCD REG)	0.483	0.000	0.333	1.000	0.000	0.000	0.000	0.000	0.000	0.833	
NET (COL/MCD ASC)	0.483	0.483	0.476	0.484	0.477	0.470	0.470	0.470	0.470	0.500	
NET (COL/MCD DEC)	0.500	0.583	0.583	0.667	0.625	0.714	0.833	0.833	0.833	0.833	
REPEAT (COL/MCD REG)	0.500	1.000	0.333	1.000	0.000	0.667	1.000	0.000	1.000	0.500	
REPEAT (COL/MCD ASC)	0.500	0.516	0.507	0.522	0.514	0.521	0.527	0.527	0.533	0.532	
REPEAT (COL/MCD DEC)	0.532	0.667	0.615	0.700	0.625	0.714	0.750	0.667	0.667	0.500	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.010	0.000	-0.167	0.167	-0.500	-0.125	0.000	0.000	0.000	0.211	
GAIN (% OF POP ASC)	-0.010	-0.009	-0.014	-0.009	-0.013	-0.017	-0.017	-0.017	-0.017	0.000	
GAIN (% OF POP DEC)	0.000	0.041	0.043	0.073	0.057	0.091	0.160	0.182	0.190	0.211	
TRIAL (% OF POP REG)	0.138	0.000	0.167	0.167	0.000	0.000	0.000	0.000	0.000	0.263	
TRIAL (% OF POP ASC)	0.138	0.137	0.138	0.138	0.137	0.132	0.131	0.130	0.129	0.139	
TRIAL (% OF POP DEC)	0.139	0.143	0.149	0.146	0.143	0.152	0.200	0.227	0.238	0.263	
T STATISTICS	0.087	0.218	0.148	0.071	0.223	0.928	1.251	1.369	0.000		
NET (% OF POP REG)	0.286	1.000	0.333	0.500	0.000	0.250	0.333	0.000	0.500	0.316	
NET (% OF POP ASC)	0.286	0.292	0.294	0.299	0.296	0.295	0.295	0.294	0.296	0.297	
NET (% OF POP DEC)	0.297	0.347	0.319	0.317	0.286	0.303	0.320	0.318	0.333	0.316	
T STATISTICS	0.844	0.362	0.302	-0.161	0.077	0.261	0.224	0.377	0.000		
REPEAT (% OF POP REG)	0.148	1.000	0.167	0.333	0.000	0.250	0.333	0.000	0.500	0.053	
REPEAT (% OF POP ASC)	0.148	0.156	0.156	0.161	0.159	0.162	0.165	0.164	0.167	0.158	
REPEAT (% OF POP DEC)	0.158	0.204	0.170	0.171	0.143	0.152	0.120	0.091	0.095	0.053	
T STATISTICS	0.975	0.247	0.238	-0.269	-0.114	-0.552	-0.905	-0.826	0.000		

AVERAGE INSTANT COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

SWITCHING TOWARD AND COUPON USAGE = 24
SWITCHING AWAY AND COUPON USAGE = 33
LOYAL TO TEST AND COUPON USAGE = 30
OTHER SWITCHING AND COUPON USAGE = 370
LOYAL TO OTHER AND COUPON USAGE = 23

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	5.	10.	9.	7.	3.	4.	3.	1.	2.	2.	46.
X -----> O	9.	13.	9.	9.	4.	4.	1.	1.	3.	1.	54.
X -----> X	20.	15.	10.	12.	6.	7.	6.	0.	2.	2.	80.
O -----> O	162.	182.	131.	107.	77.	76.	50.	10.	35.	25.	855.
O <----> O	14.	14.	9.	9.	0.	5.	0.	0.	0.	0.	51.
TOTAL	210.	234.	168.	144.	90.	96.	60.	12.	42.	30.	1086.
TRIAL (COL/MCD REG)	0.028	0.049	0.060	0.057	0.037	0.047	0.057	0.091	0.054	0.074	
TRIAL (COL/MCD ASC)	0.028	0.039	0.045	0.047	0.046	0.046	0.047	0.047	0.048	0.048	
TRIAL (COL/MCD DEC)	0.048	0.053	0.055	0.053	0.051	0.056	0.063	0.067	0.063	0.074	
NET (COL/MCD REG)	0.357	0.435	0.500	0.438	0.429	0.500	0.750	0.500	0.400	0.667	
NET (COL/MCD ASC)	0.357	0.405	0.436	0.437	0.436	0.442	0.456	0.457	0.454	0.460	
NET (COL/MCD DEC)	0.460	0.477	0.492	0.489	0.517	0.545	0.571	0.500	0.500	0.667	
REPEAT (COL/MCD REG)	0.690	0.536	0.526	0.571	0.600	0.636	0.857	0.000	0.400	0.667	
REPEAT (COL/MCD ASC)	0.690	0.614	0.592	0.588	0.589	0.593	0.608	0.603	0.595	0.597	
REPEAT (COL/MCD DEC)	0.597	0.571	0.584	0.603	0.622	0.630	0.625	0.444	0.500	0.667	
GAIN (% OF POP REG)	-0.019	-0.013	0.000	-0.014	-0.011	0.000	0.033	0.000	-0.024	0.033	
GAIN (% OF POP ASC)	-0.019	-0.016	-0.011	-0.012	-0.012	-0.011	-0.008	-0.008	-0.009	-0.007	
GAIN (% OF POP DEC)	-0.007	-0.005	-0.002	-0.002	0.003	0.008	0.014	0.000	0.000	0.033	
TRIAL (% OF POP REG)	0.024	0.043	0.054	0.049	0.033	0.042	0.050	0.083	0.048	0.067	
TRIAL (% OF POP ASC)	0.024	0.034	0.039	0.041	0.040	0.040	0.041	0.041	0.042	0.042	
TRIAL (% OF POP DEC)	0.042	0.047	0.048	0.046	0.045	0.050	0.056	0.060	0.056	0.067	
NET (% OF POP REG)	0.119	0.107	0.113	0.132	0.100	0.115	0.150	0.083	0.095	0.133	
NET (% OF POP ASC)	0.119	0.113	0.113	0.116	0.115	0.115	0.117	0.116	0.116	0.116	
NET (% OF POP DEC)	0.116	0.115	0.118	0.120	0.115	0.121	0.125	0.107	0.111	0.133	
REPEAT (% OF POP REG)	0.095	0.064	0.060	0.083	0.067	0.073	0.100	0.000	0.048	0.067	
REPEAT (% OF POP ASC)	0.095	0.079	0.074	0.075	0.074	0.074	0.076	0.075	0.074	0.074	
REPEAT (% OF POP DEC)	0.074	0.068	0.070	0.074	0.070	0.071	0.069	0.048	0.056	0.067	

AVERAGE INSTANT COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	37.	7.	2.	0.	0.	0.	0.	0.	0.	0.	46.
X -----> O	42.	7.	3.	2.	0.	0.	0.	0.	0.	0.	54.
X -----> X	62.	12.	4.	2.	0.	0.	0.	0.	0.	0.	80.
O -----> O	609.	154.	60.	23.	5.	3.	0.	0.	0.	1.	855.
O <----> O	43.	6.	1.	1.	0.	0.	0.	0.	0.	0.	51.
TOTAL	793.	186.	70.	28.	5.	3.	0.	0.	0.	1.	1086.
TRIAL (COL/MCD REG)	0.054	0.042	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (CCL/MCD ASC)	0.054	0.051	0.050	0.049	0.049	0.048	0.048	0.048	0.048	0.048	
TRIAL (COL/MCD DEC)	0.048	0.034	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.253	-1.324	-1.317	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.468	0.500	0.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.468	0.473	0.469	0.460	0.460	0.460	0.460	0.460	0.460	0.460	
NET (CCL/MCD DEC)	0.460	0.429	0.286	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.596	0.632	0.571	0.500	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.596	0.602	0.600	0.597	0.597	0.597	0.597	0.597	0.597	0.597	
REPEAT (COL/MCD DEC)	0.597	0.600	0.545	0.500	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.006	0.000	-0.014	-0.071	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.006	-0.005	-0.006	-0.007	-0.007	-0.007	-0.007	-0.007	-0.007	-0.007	
GAIN (% OF POP DEC)	-0.007	-0.010	-0.028	-0.054	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.047	0.038	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.047	0.045	0.044	0.043	0.043	0.042	0.042	0.042	0.042	0.042	
TRIAL (% OF POP DEC)	0.042	0.031	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.158	-1.280	-1.302	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.125	0.102	0.086	0.071	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.125	0.121	0.118	0.117	0.116	0.116	0.116	0.116	0.116	0.116	
NET (% OF PCP DEC)	0.116	0.092	0.075	0.054	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.493	-1.403	-1.198	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.078	0.065	0.057	0.071	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF PCP ASC)	0.078	0.076	0.074	0.074	0.074	0.074	0.074	0.074	0.074	0.074	
REPEAT (% OF POP DEC)	0.074	0.061	0.056	0.054	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.938	-0.734	-0.465	0.000	0.000	0.000	0.000	0.000	0.000		

AVERAGE INSTANT COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	8.	9.	8.	7.	4.	4.	1.	1.	2.	2.	46.
X -----> O	9.	14.	12.	6.	6.	3.	3.	0.	1.	0.	54.
X -----> X	24.	16.	11.	11.	3.	5.	6.	1.	1.	2.	80.
O -----> O	198.	196.	140.	100.	80.	62.	36.	14.	14.	15.	855.
O <----> O	15.	15.	11.	6.	2.	2.	0.	0.	0.	0.	51.
TOTAL	254.	250.	182.	130.	95.	76.	46.	16.	18.	19.	1086.
TRIAL (COL/MCD REG)	0.036	0.041	0.050	0.062	0.047	0.059	0.027	0.067	0.125	0.118	
TRIAL (COL/MCD ASC)	0.036	0.039	0.042	0.045	0.045	0.046	0.045	0.046	0.047	0.048	
TRIAL (COL/MCD DEC)	0.048	0.052	0.057	0.060	0.059	0.065	0.071	0.104	0.121	0.118	
NET (COL/MCD REG)	0.471	0.391	0.400	0.538	0.400	0.571	0.250	1.000	0.667	1.000	
NET (COL/MCD ASC)	0.471	0.425	0.417	0.438	0.434	0.444	0.436	0.442	0.449	0.460	
NET (COL/MCD DEC)	0.460	0.458	0.483	0.525	0.519	0.588	0.600	0.833	0.800	1.000	
REPEAT (COL/MCD REG)	0.727	0.533	0.478	0.647	0.333	0.625	0.667	1.000	0.500	1.000	
REPEAT (COL/MCD ASC)	0.727	0.635	0.593	0.602	0.580	0.583	0.589	0.592	0.591	0.597	
REPEAT (COL/MCD DEC)	0.597	0.554	0.563	0.604	0.581	0.682	0.714	0.800	0.750	1.000	
GAIN (% OF POP REG)	-0.004	-0.020	-0.022	0.008	-0.021	0.013	-0.043	0.063	0.056	0.105	
GAIN (% OF POP ASC)	-0.004	-0.012	-0.015	-0.011	-0.012	-0.010	-0.012	-0.010	-0.009	-0.007	
GAIN (% OF POP DEC)	-0.007	-0.008	-0.003	0.005	0.004	0.017	0.020	0.075	0.081	0.105	
TRIAL (% OF POP REG)	0.031	0.036	0.044	0.054	0.042	0.053	0.022	0.063	0.111	0.105	
TRIAL (% OF POP ASC)	0.031	0.034	0.036	0.039	0.040	0.041	0.040	0.040	0.041	0.042	
TRIAL (% OF POP DEC)	0.042	0.046	0.050	0.052	0.052	0.057	[illegible]	0.094	[illegible]	[illegible]	
NET (% OF POP REG)	0.126	0.100	0.104	0.138	0.074	0.118	0.152	0.125	0.167	0.211	
NET (% OF POP ASC)	0.126	0.113	0.111	0.115	0.111	0.111	0.113	0.113	0.114	0.116	
NET (% OF POP DEC)	0.116	0.113	0.119	0.125	0.119	0.143	0.162	0.170	0.189	0.211	
REPEAT (% OF POP REG)	0.094	0.064	0.060	0.085	0.032	0.066	0.130	0.063	0.056	0.105	
REPEAT (% OF POP ASC)	0.094	0.079	0.074	0.076	0.071	0.071	0.074	0.073	0.073	0.074	
REPEAT (% OF POP DEC)	0.074	0.067	0.069	0.072	0.067	0.086	0.101	0.075	0.081	0.105	

AVERAGE INSTANT COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	9.	3.	7.	9.	9.	6.	2.	1.	0.	0.	0.	46.
X -----> O	4.	4.	9.	10.	16.	11.	0.	0.	0.	0.	0.	54.
X -----> X	15.	2.	9.	9.	16.	23.	4.	2.	0.	0.	0.	80.
O -----> O	104.	67.	99.	133.	192.	203.	42.	9.	3.	2.	1.	855.
O <----> O	2.	0.	8.	8.	15.	15.	3.	0.	0.	0.	0.	51.
TOTAL	134.	76.	132.	169.	248.	258.	51.	12.	3.	2.	1.	1086.
TRIAL (COL/MCD REG)	0.078	0.043	0.061	0.060	0.042	0.027	0.043	0.100	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.078	0.065	0.064	0.062	0.056	0.048	0.048	0.049	0.048	0.048	0.048	
TRIAL (COL/MCD DEC)	0.048	0.044	0.044	0.041	0.036	0.031	0.048	0.063	0.000	0.000	0.000	
NET (COL/MCD REG)	0.692	0.429	0.438	0.474	0.360	0.353	1.000	1.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.692	0.600	0.528	0.509	0.462	0.443	0.455	0.460	0.460	0.460	0.460	
NET (COL/MCD DEC)	0.460	0.425	0.425	0.422	0.400	0.450	1.000	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.789	0.333	0.500	0.474	0.500	0.676	1.000	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.789	0.680	0.605	0.565	0.543	0.578	0.591	0.597	0.597	0.597	0.597	
REPEAT (COL/MCD DEC)	0.597	0.565	0.578	0.593	0.625	0.725	1.000	1.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.037	-0.013	-0.015	-0.006	-0.028	-0.019	0.039	0.083	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.037	0.019	0.006	0.002	-0.008	-0.011	-0.008	-0.007	-0.007	-0.007	-0.007	
GAIN (% OF POP DEC)	-0.007	-0.014	-0.014	-0.013	-0.016	-0.006	0.043	0.056	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.067	0.039	0.053	0.053	0.036	0.023	0.039	0.083	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.067	0.057	0.056	0.055	0.049	0.042	0.042	0.043	0.042	0.042	0.042	
TRIAL (% OF POP DEC)	0.042	0.039	0.039	0.036	0.031	0.028	0.043	0.056	0.000	0.000	0.000	
NET (% OF POP REG)	0.179	0.066	0.121	0.107	0.101	0.112	0.118	0.250	0.000	0.000	0.000	
NET (% OF POP ASC)	0.179	0.138	0.132	0.123	0.116	0.115	0.115	0.117	0.116	0.116	0.116	
NET (% OF POP DEC)	0.116	0.107	0.111	0.109	0.110	0.116	0.130	0.167	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.112	0.026	0.068	0.053	0.065	0.089	0.078	0.167	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.112	0.081	0.076	0.068	0.067	0.073	0.073	0.074	0.074	0.074	0.074	
REPEAT (% OF POP DEC)	0.074	0.068	0.072	0.073	0.078	0.089	0.087	0.111	0.000	0.000	0.000	

AVERAGE INSTANT CCFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
0 -----> X	1.	1.	3.	14.	9.	14.	3.	1.	0.	0.	0.	46.
X -----> 0	0.	1.	1.	16.	5.	27.	4.	0.	0.	0.	0.	54.
X -----> X	1.	2.	7.	12.	11.	38.	6.	2.	1.	0.	0.	80.
0 -----> 0	9.	12.	60.	159.	120.	371.	83.	28.	8.	3.	2.	855.
0 <----> 0	0.	0.	2.	10.	6.	27.	5.	1.	0.	0.	0.	51.
TOTAL	11.	16.	73.	211.	151.	477.	101.	32.	9.	3.	2.	1086.
TRIAL (COL/MCD REG)	0.100	0.077	0.046	0.077	0.067	0.034	0.033	0.033	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.100	0.087	0.057	0.070	0.069	0.051	0.050	0.049	0.049	0.048	C.048	
TRIAL (COL/MCD DEC)	0.048	0.048	0.047	0.047	0.040	0.033	0.030	0.023	0.000	0.000	0.000	
T STATISTICS	0.000	-0.875	-0.390	-1.977	-2.559	-1.068	-0.766	0.000	0.000	0.000		
NET (COL/MCD REG)	1.000	0.500	0.750	0.467	0.643	0.341	0.429	1.000	0.000	0.000	0.000	
NET (COL/MCC ASC)	1.000	0.667	0.714	0.514	0.549	0.457	0.455	0.460	0.460	0.460	0.460	
NET (COL/MCD DEC)	0.460	0.455	0.454	0.441	0.429	0.367	0.500	1.000	0.000	0.000	0.000	
REPEAT (CCL/MCD REG)	1.000	0.667	0.875	0.429	0.688	0.585	0.600	1.000	1.000	0.000	0.000	
REPEAT (COL/MCD ASC)	1.000	0.750	0.833	0.550	0.589	0.587	0.588	0.594	0.597	0.597	0.597	
REPEAT (COL/MCD DEC)	0.597	0.594	0.592	0.574	0.617	0.603	0.692	1.000	1.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.653	0.120	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.091	0.000	0.027	-0.009	0.026	-0.027	-0.010	0.031	0.000	0.000	0.000	
GAIN (% CF POP ASC)	0.091	0.037	0.030	0.003	0.011	-0.009	-0.009	-0.007	-0.007	-0.007	-0.007	
GAIN (% OF POP DEC)	-0.007	-0.008	-0.008	-0.011	-0.012	-0.021	0.000	0.022	0.000	0.000	0.000	
TRIAL (% OF POP REG)	C.091	0.063	0.041	0.066	0.060	0.029	0.030	0.031	0.000	0.000	0.000	
TRIAL (% CF POP ASC)	0.091	0.074	0.050	0.061	0.061	0.045	C.043	0.043	0.043	0.042	0.042	
TRIAL (% OF POP DEC)	0.042	0.042	0.042	0.042	0.035	0.029	0.027	0.022	0.000	0.000	0.000	
T STATISTICS	C.000	-0.829	-0.398	-1.940	-2.566	-0.971	-0.686	0.000	0.000	0.000		
NET (% OF POP REG)	0.182	0.188	0.137	0.123	0.132	0.109	0.089	0.094	0.111	0.000	0.000	
NET (% OF POP ASC)	C.182	0.185	0.150	0.132	0.132	0.120	0.117	0.117	0.117	0.116	0.116	
NET (% OF POP DEC)	0.116	0.115	0.114	0.113	0.110	0.104	0.088	0.087	0.071	0.000	0.000	
T STATISTICS	C.000	-1.136	-1.113	-1.030	-1.416	-1.113	-0.609	0.000	0.000	0.000		
REPEAT (% OF PCP REG)	0.091	0.125	0.096	0.057	0.073	0.080	0.059	0.063	0.111	0.000	0.000	
REPEAT (% OF POP ASC)	0.091	0.111	0.100	0.071	0.071	0.076	0.074	0.074	0.074	0.074	0.074	
REPEAT (% OF POP DEC)	0.074	0.073	0.073	0.071	0.075	0.075	0.061	0.065	0.071	0.000	0.000	
T STATISTICS	0.000	-0.754	-1.058	0.234	0.243	-0.615	-0.217	0.000	0.000	0.000		

AVERAGE INSTANT COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	37.	1.	2.	2.	0.	1.	0.	0.	0.	3.	46.
X -----> O	42.	1.	3.	6.	0.	2.	0.	0.	0.	0.	54.
X -----> X	62.	1.	4.	3.	1.	3.	1.	1.	0.	4.	80.
C -----> O	609.	32.	60.	46.	10.	41.	17.	1.	3.	36.	855.
O <----> O	43.	0.	2.	2.	0.	1.	2.	0.	C.	1.	51.
TOTAL	793.	35.	71.	59.	11.	48.	20.	2.	3.	44.	1086.
TRIAL (COL/MCD REG)	0.054	0.030	0.031	0.040	0.000	0.023	0.000	0.000	0.000	0.075	
TRIAL (COL/MCD ASC)	0.054	0.053	0.051	0.050	0.050	0.048	0.047	0.047	0.047	0.048	
TRIAL (CCL/MCD DEC)	0.048	0.034	0.035	0.036	0.034	0.038	0.048	0.068	0.070	0.075	
T STATISTICS	-1.253	-1.099	-0.805	-0.742	-0.539	-0.027	0.629	0.671	0.804		
NET (COL/MCD REG)	0.468	0.500	0.400	0.250	0.000	0.333	0.000	0.000	0.000	1.000	
NET (COL/MCD ASC)	0.468	0.469	0.465	0.447	0.447	0.443	0.443	0.443	0.443	0.460	
NET (COL/MCD DEC)	C.460	0.429	0.421	0.429	0.667	0.667	1.000	1.000	1.000	1.000	
REPEAT (COL/MCD REG)	0.596	0.500	0.571	0.333	1.000	0.600	1.000	1.000	0.000	1.000	
REPEAT (COL/MCD ASC)	C.596	0.594	0.593	0.574	0.577	0.578	0.581	0.585	0.585	0.597	
REPEAT (COL/MCD DEC)	0.597	0.600	0.607	0.619	0.833	0.818	1.000	1.000	1.000	1.000	
T STATISTICS	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.006	0.000	-0.014	-0.068	0.000	-0.021	0.000	0.000	0.000	0.068	
GAIN (% OF POP ASC)	-0.006	-0.006	-0.007	-0.010	-0.010	-0.011	-0.011	-0.011	-0.011	-0.007	
GAIN (% OF POP DEC)	-0.007	-0.010	-0.012	-0.011	0.016	0.017	0.043	0.061	0.064	0.068	
TRIAL (% OF POP REG)	0.047	0.029	0.028	0.034	0.000	0.021	0.000	0.000	0.000	0.068	
TRIAL (% OF POP ASC)	0.047	0.046	0.044	0.044	0.043	0.042	0.041	0.041	0.041	0.042	
TRIAL (% OF POP DEC)	0.042	0.031	0.031	0.032	0.031	0.034	0.043	0.061	0.064	0.068	
T STATISTICS	-1.158	-1.037	-0.767	-0.664	-0.464	0.048	0.671	0.747	0.868		
NET (% CF POP REG)	0.125	0.057	0.085	0.085	0.C91	0.083	0.050	0.500	0.000	0.159	
NET (% OF POP ASC)	0.125	0.122	0.119	0.117	0.117	0.115	0.114	0.115	0.114	0.116	
NET (% OF POP DEC)	0.116	0.092	0.097	0.102	0.109	0.111	0.130	0.163	0.149	0.159	
T STATISTICS	-1.493	-1.098	-0.677	-0.250	-0.176	0.386	1.057	0.720	0.911		
REPEAT (% UF POP REG)	0.078	0.029	0.056	0.051	0.091	0.063	0.050	0.500	0.000	0.091	
REPEAT (% OF POP ASC)	0.078	0.076	0.075	0.073	0.073	0.073	0.072	0.073	0.073	0.074	
REPEAT (% OF POP DEC)	0.074	0.061	0.066	0.070	0.078	0.077	0.087	0.102	0.085	0.091	
T STATISTICS	-0.938	-0.547	-0.239	0.206	0.143	0.437	0.778	0.307	0.447		

AVERAGE INSTANT COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

SWITCHING TOWARD AND COUPON USAGE = 24
SWITCHING AWAY AND COUPON USAGE = 33
LOYAY TO TEST AND COUPON USAGE = 30
OTHER SWITCHING AND COUPON USAGE = 370
LOYAL TO OTHER AND COUPON USAGE = 23

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	4.	5.	7.	2.	2.	2.	0.	1.	0.	1.	24.
X -----> O	8.	6.	7.	4.	4.	3.	0.	1.	0.	0.	33.
X -----> X	8.	10.	2.	5.	2.	2.	0.	0.	1.	0.	30.
O -----> O	84.	107.	64.	43.	34.	24.	0.	4.	5.	5.	370.
O <----> O	4.	10.	4.	0.	0.	5.	0.	0.	0.	0.	23.
TOTAL	108.	138.	84.	54.	42.	36.	0.	6.	6.	6.	480.
TRIAL (COL/MCD REG)	0.043	0.041	0.093	0.044	0.056	0.065	0.000	0.200	0.000	0.167	
TRIAL (COL/MCD ASC)	0.043	0.042	0.055	0.054	0.054	0.055	0.055	0.057	0.056	0.058	
TRIAL (COL/MCD DEC)	0.058	0.062	0.074	0.063	0.072	0.085	0.125	0.125	0.091	0.167	
NET (COL/MCD REG)	0.333	0.455	0.500	0.333	0.333	0.400	0.000	0.500	0.000	1.000	
NET (COL/MCD ASC)	0.333	0.391	0.432	0.419	0.408	0.407	0.407	0.411	0.411	0.421	
NET (COL/MCD DEC)	0.421	0.444	0.441	0.400	0.429	0.500	0.667	0.667	1.000	1.000	
REPEAT (COL/MCD REG)	0.500	0.625	0.222	0.556	0.333	0.400	0.000	0.000	1.000	0.000	
REPEAT (COL/MCD ASC)	0.500	0.563	0.488	0.500	0.482	0.475	0.475	0.468	0.476	0.476	
REPEAT (COL/MCD DEC)	0.476	0.468	0.387	0.455	0.385	0.429	0.500	0.500	1.000	0.000	
GAIN (% OF POP REG)	-0.037	-0.007	0.000	-0.037	-0.048	-0.028	0.000	0.000	0.000	0.167	
GAIN (% OF POP ASC)	-0.037	-0.020	-0.015	-0.018	-0.021	-0.022	-0.022	-0.021	-0.021	-0.019	
GAIN (% OF POP DEC)	-0.019	-0.013	-0.017	-0.027	-0.021	0.000	0.056	0.056	0.083	0.167	
TRIAL (% OF POP REG)	0.037	0.036	0.083	0.037	0.048	0.056	0.000	0.167	0.000	0.167	
TRIAL (% OF POP ASC)	0.037	0.037	0.048	0.047	0.047	0.048	0.048	0.049	0.049	0.050	
TRIAL (% OF POP DEC)	0.050	0.054	0.064	0.053	0.063	0.074	0.111	0.111	0.083	0.167	
NET (% OF POP REG)	0.111	0.109	0.107	0.130	0.095	0.111	0.000	0.167	0.167	0.167	
NET (% OF POP ASC)	0.111	0.110	0.109	0.112	0.110	0.110	0.110	0.111	0.112	0.112	
NET (% OF POP DEC)	0.112	0.113	0.115	0.120	0.115	0.130	0.167	0.167	0.167	0.167	
REPEAT (% OF POP REG)	0.074	0.072	0.024	0.093	0.048	0.056	0.000	0.000	0.167	0.000	
REPEAT (% OF POP ASC)	0.074	0.073	0.061	0.065	0.063	0.063	0.063	0.062	0.063	0.063	
REPEAT (% OF POP DEC)	0.063	0.059	0.051	0.067	0.052	0.056	0.056	0.056	0.083	0.000	

AVERAGE INSTANT COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
C -----> X	21.	3.	0.	0.	0.	0.	0.	0.	0.	0.	24.
X -----> O	29.	3.	1.	0.	0.	0.	0.	0.	0.	0.	33.
X -----> X	20.	7.	3.	0.	0.	0.	0.	0.	0.	0.	30.
O -----> O	287.	55.	22.	4.	1.	0.	0.	0.	0.	1.	370.
O <----> O	19.	3.	0.	1.	0.	0.	0.	0.	0.	0.	23.
TOTAL	376.	71.	26.	5.	1.	0.	0.	0.	0.	1.	480.
TRIAL (COL/MCD REG)	0.064	0.049	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.064	0.062	0.059	0.058	0.058	0.058	0.058	0.058	0.058	0.058	
TRIAL (COL/MCD DEC)	0.058	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.114	-1.380	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.420	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (CCL/MCD ASC)	C.420	0.429	0.421	0.421	0.421	0.421	0.421	0.421	0.421	0.421	
NET (COL/MCD CEC)	0.421	0.429	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.408	0.700	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.408	0.458	0.476	0.476	0.476	0.476	0.476	0.476	0.476	0.476	
REPEAT (COL/MCD DEC)	0.476	0.714	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	C.000	0.C00	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.021	0.000	-0.038	0.000	0.000	0.000	0.C00	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-C.021	-0.018	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	
GAIN (% OF POP DEC)	-0.019	-0.010	-0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.056	0.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.056	0.054	0.051	0.050	0.050	0.050	C.050	0.050	0.050	0.050	
TRIAL (% OF POP DEC)	0.050	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.118	-1.366	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.109	0.141	0.115	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF PGP ASC)	0.109	0.114	0.114	0.113	0.113	0.113	0.113	0.113	0.113	0.112	
NET (% OF POP DEC)	0.112	0.125	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.456	-0.407	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.053	0.099	0.115	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.053	0.060	0.063	0.063	0.063	0.C63	0.063	0.063	0.063	0.063	
REPEAT (% OF POP DEC)	0.063	0.096	0.091	0.000	0.000	0.000	C.000	0.000	0.000	0.000	
T STATISTICS	1.602	0.699	0.000	0.000	0.000	0.C00	0.000	0.000	0.000		

AVERAGE INSTANT COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	5.	5.	6.	2.	3.	1.	0.	1.	0.	1.	24.
X -----> O	8.	6.	8.	4.	5.	1.	1.	0.	0.	0.	33.
X -----> X	12.	8.	3.	4.	1.	1.	0.	1.	0.	0.	30.
O -----> O	105.	107.	65.	43.	25.	15.	2.	2.	2.	4.	370.
O <----> O	5.	9.	5.	0.	2.	2.	0.	0.	0.	0.	23.
TOTAL	135.	135.	87.	53.	36.	20.	3.	4.	2.	5.	480.
TRIAL (COL/MCD REG)	0.043	0.041	0.079	0.044	0.100	0.056	0.000	0.333	0.000	0.200	
TRIAL (COL/MCD ASC)	0.043	0.042	0.051	0.050	0.054	0.054	0.054	0.056	0.056	0.058	
TRIAL (COL/MCD DEC)	0.058	0.063	0.077	0.076	0.100	0.100	0.167	0.200	0.143	0.200	
NET (COL/MCD REG)	0.385	0.455	0.429	0.333	0.375	0.500	0.000	1.000	0.000	1.000	
NET (COL/MCD ASC)	0.385	0.417	0.421	0.409	0.404	0.407	0.400	0.411	0.411	0.421	
NET (COL/MCD DEC)	0.421	0.432	0.424	0.421	0.462	0.600	0.667	1.000	1.000	1.000	
REPEAT (COL/MCD REG)	0.600	0.571	0.273	0.500	0.167	0.500	0.000	1.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.600	0.588	0.511	0.509	0.475	0.475	0.468	0.476	0.476	0.476	
REPEAT (COL/MCD DEC)	0.476	0.419	0.345	0.389	0.300	0.500	0.500	1.000	0.000	0.000	
GAIN (% OF POP REG)	-0.022	-0.007	-0.023	-0.038	-0.056	0.000	-0.333	0.250	0.000	0.200	
GAIN (% OF POP ASC)	-0.022	-0.015	-0.017	-0.020	-0.022	-0.021	-0.023	-0.021	-0.021	-0.019	
GAIN (% OF POP DEC)	-0.019	-0.017	-0.024	-0.024	-0.014	0.029	0.071	0.182	0.143	0.200	
TRIAL (% OF POP REG)	0.037	0.037	0.069	0.038	0.083	0.050	0.000	0.250	0.000	0.200	
TRIAL (% OF POP ASC)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
TRIAL (% OF POP DEC)	0.050	0.055	0.067	0.065	0.086	0.088	0.143	0.182	0.143	0.200	
NET (% OF POP REG)	0.126	0.096	0.103	0.113	0.111	0.100	0.000	0.500	0.000	0.200	
NET (% OF POP ASC)	0.126	0.111	0.109	0.110	0.110	0.109	0.109	0.112	0.112	0.112	
NET (% OF POP DEC)	0.112	0.107	0.114	0.122	0.129	0.147	0.214	0.273	0.143	0.200	
REPEAT (% OF POP REG)	0.089	0.059	0.034	0.075	0.028	0.050	0.000	0.250	0.000	0.000	
REPEAT (% OF POP ASC)	0.089	0.074	0.064	0.066	0.063	0.062	0.062	0.063	0.063	0.063	
REPEAT (% OF POP DEC)	0.063	0.052	0.048	0.057	0.043	0.059	0.071	0.091	0.000	0.000	

AVERAGE INSTANT COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	3.	2.	3.	6.	4.	5.	1.	0.	0.	0.	0.	24.
X -----> O	2.	3.	6.	7.	6.	9.	0.	0.	0.	0.	0.	33.
X -----> X	2.	1.	2.	2.	10.	8.	4.	1.	0.	0.	0.	30.
O -----> O	22.	17.	36.	60.	107.	101.	19.	6.	1.	0.	1.	370.
O <----> O	2.	0.	2.	4.	9.	4.	2.	0.	0.	0.	0.	23.
TOTAL	31.	23.	49.	79.	136.	127.	26.	7.	1.	0.	1.	480.
TRIAL (COL/MCD REG)	0.111	0.105	0.073	0.086	0.033	0.045	0.045	0.000	0.000	0.000	0.000	
TRIAL (CCL/MCD ASC)	0.111	0.109	0.092	0.089	0.065	0.059	0.059	0.058	0.058	0.058	0.058	
TRIAL (CCL/MCD DEC)	0.058	0.054	0.051	0.048	0.038	0.043	0.033	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.600	0.400	0.333	0.462	0.400	0.357	1.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	C.600	0.500	0.421	0.438	0.429	0.411	0.421	0.421	0.421	0.421	0.421	
NET (CCL/MCD DEC)	0.421	0.404	0.404	0.421	0.400	0.400	1.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.500	0.250	0.250	0.222	0.625	0.471	1.000	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.500	0.375	0.313	0.280	0.415	0.431	0.468	0.476	0.476	0.476	0.476	
REPEAT (COL/MCD DEC)	0.476	0.475	0.491	0.532	0.605	0.591	1.000	1.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.032	-0.043	-0.061	-0.013	-0.015	-0.031	0.038	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.032	0.000	-0.029	-0.022	-0.019	-0.022	-0.019	-0.019	-0.019	-0.019	-0.019	
GAIN (% OF POP DEC)	-0.019	-0.022	-0.021	-0.016	-0.017	-0.019	0.029	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.097	0.087	0.061	0.076	0.029	0.039	0.038	0.000	0.000	0.000	0.000	
TRIAL (% CF POP ASC)	0.097	0.093	0.078	0.077	0.057	0.052	0.051	0.050	0.050	0.050	0.050	
TRIAL (% OF POP DEC)	0.050	0.047	0.045	0.042	0.034	0.037	0.029	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.161	0.130	0.102	0.101	0.103	0.102	0.192	0.143	0.000	0.000	0.000	
NET (% OF POP ASC)	0.161	0.148	0.126	0.115	0.110	0.108	0.113	0.113	0.113	0.113	0.112	
NET (% OF POP DEC)	0.112	0.109	0.108	0.109	0.111	0.117	0.171	0.111	0.000	0.000	0.000	
REPEAT (% CF POP REG)	0.065	0.043	0.041	0.025	0.074	0.063	0.154	0.143	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.065	0.056	0.049	0.038	0.053	0.056	0.062	0.063	0.063	0.063	0.063	
REPEAT (% OF POP DEC)	0.063	0.062	0.063	0.066	0.077	0.080	0.143	0.111	0.000	0.000	0.000	

AVERAGE INSTANT COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	1.	0.	0.	9.	4.	8.	2.	0.	0.	0.	0.	24.
X -----> O	0.	0.	0.	13.	2.	18.	0.	0.	0.	0.	0.	33.
X -----> X	0.	0.	3.	3.	1.	16.	5.	2.	0.	0.	0.	30.
O -----> O	2.	2.	14.	68.	50.	183.	33.	15.	2.	0.	1.	370.
O <----> O	0.	0.	2.	6.	2.	11.	1.	1.	0.	0.	0.	23.
TOTAL	3.	2.	19.	99.	59.	236.	41.	18.	2.	0.	1.	480.
TRIAL (COL/MCD REG)	0.333	0.000	0.000	0.108	0.071	0.040	0.056	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.333	0.200	0.048	0.096	0.087	0.061	0.060	0.058	0.058	0.058	0.058	
TRIAL (COL/MCD DEC)	0.058	0.056	0.056	0.058	0.045	0.039	0.036	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.201	-1.950	-2.069	-0.718	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	1.000	0.000	0.000	0.409	0.667	0.308	1.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	1.000	1.000	1.000	0.435	0.483	0.400	0.421	0.421	0.421	0.421	0.421	
NET (COL/MCD DEC)	0.421	0.411	0.411	0.411	0.412	0.357	1.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	0.000	1.000	0.188	0.333	0.471	1.000	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.000	1.000	0.316	0.318	0.411	0.459	0.476	0.476	0.476	0.476	
REPEAT (COL/MCD DEC)	0.476	0.476	0.476	0.450	0.545	0.561	1.000	1.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.333	0.000	0.000	-0.040	0.034	-0.042	0.049	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.333	0.200	0.042	-0.024	-0.005	-0.026	-0.020	-0.019	-0.019	-0.019	-0.019	
GAIN (% OF POP DEC)	-0.019	-0.021	-0.021	-0.022	-0.017	-0.027	0.032	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.333	0.000	0.000	0.091	0.068	0.034	0.049	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.333	0.200	0.042	0.081	0.077	0.053	0.052	0.050	0.050	0.050	0.050	
TRIAL (% OF POP DEC)	0.050	0.048	0.048	0.050	0.039	0.034	0.032	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.192	-1.847	-2.115	-0.687	-1.075	0.000	0.000	0.000		
NET (% OF POP REG)	0.333	0.000	0.158	0.121	0.085	0.102	0.171	0.111	0.000	0.000	0.000	
NET (% OF POP ASC)	0.333	0.200	0.167	0.130	0.115	0.108	0.113	0.113	0.113	0.113	0.112	
NET (% OF POP DEC)	0.112	0.111	0.112	0.110	0.106	0.111	0.145	0.095	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	-0.862	-0.716	-0.156	0.872	-0.256	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.000	0.000	0.158	0.030	0.017	0.068	0.122	0.111	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.000	0.125	0.049	0.038	0.055	0.061	0.063	0.063	0.063	0.063	
REPEAT (% OF POP DEC)	0.063	0.063	0.063	0.059	0.067	0.077	0.113	0.095	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	-1.298	0.729	1.700	1.757	0.634	0.000	0.000	0.000		

AVERAGE INSTANT COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
C -----> X	21.	0.	1.	0.	0.	1.	0.	0.	0.	1.	24.
X -----> O	29.	1.	2.	0.	0.	1.	0.	0.	0.	0.	33.
X -----> X	20.	1.	1.	2.	1.	0.	1.	0.	0.	4.	30.
O -----> O	287.	3.	22.	10.	4.	17.	6.	0.	0.	21.	370.
O <----> O	19.	0.	2.	0.	0.	0.	1.	0.	0.	1.	23.
TOTAL	376.	5.	28.	12.	5.	19.	8.	0.	0.	27.	480.
TRIAL (COL/MCD REG)	0.064	0.000	0.040	0.000	0.000	0.056	0.000	0.000	0.000	0.043	
TRIAL (COL/MCD ASC)	0.064	0.C64	0.062	0.060	0.060	0.059	0.058	0.058	0.058	0.058	
TRIAL (COL/MCD DEC)	0.058	C.033	0.034	0.032	0.038	0.042	0.033	0.043	0.043	0.043	
T STATISTICS	-1.114	-1.039	-0.927	-0.632	-0.502	-0.591	-0.298	-0.298	-0.298		
NET (COL/MCD REG)	0.420	0.000	0.333	0.000	0.000	0.500	0.000	0.000	0.000	1.000	
NET (CCL/MCD ASC)	0.420	0.412	0.407	0.407	0.407	0.411	0.411	0.411	0.411	0.421	
NET (COL/MCD DEC)	0.421	0.429	0.500	0.667	0.667	0.667	1.000	1.000	1.000	1.000	
REPEAT (COL/MCD REG)	0.408	0.500	0.333	1.000	1.000	0.000	1.000	0.000	0.000	1.000	
REPEAT (CCL/MCD ASC)	0.408	0.412	0.407	0.429	0.439	0.431	0.441	0.441	0.441	0.476	
REPEAT (COL/MCD DEC)	0.476	0.714	0.750	0.889	0.857	0.833	1.000	1.000	1.000	1.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.021	-0.200	-0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.037	
GAIN (% OF POP ASC)	-0.021	-0.024	-0.024	-0.024	-0.023	-0.022	-0.022	-0.022	-0.022	-0.019	
GAIN (% OF POP DEC)	-0.019	-0.010	0.000	0.014	0.017	0.019	0.029	0.037	0.037	0.037	
TRIAL (% OF POP REG)	0.056	0.000	0.036	0.000	0.000	0.053	0.000	0.000	0.000	0.037	
TRIAL (% OF POP ASC)	0.056	0.055	0.054	0.052	0.052	0.052	0.051	0.051	0.051	0.050	
TRIAL (% OF POP DEC)	0.050	0.029	0.030	0.028	0.034	0.037	0.029	0.037	0.037	0.037	
T STATISTICS	-1.118	-1.009	-0.914	-0.606	-0.464	-0.604	-0.318	-0.318	-0.318		
NET (% OF POP REG)	0.109	0.200	0.071	0.167	0.200	0.053	0.125	0.000	0.000	0.185	
NET (% OF POP ASC)	0.109	0.110	0.108	0.109	0.110	0.108	0.108	0.108	0.108	0.112	
NET (% OF POP DEC)	C.112	0.125	0.121	0.141	0.136	0.130	0.171	0.185	0.185	0.185	
T STATISTICS	0.456	0.308	0.819	0.599	0.423	1.146	1.230	1.230	1.23C		
REPEAT (% OF POP REG)	0.053	0.200	0.036	0.167	0.200	0.000	0.125	0.000	0.000	0.148	
REPEAT (% OF POP ASC)	0.053	0.055	0.054	0.057	0.059	0.056	0.057	0.057	0.057	0.063	
REPEAT (% OF POP DEC)	0.063	0.C96	0.091	0.113	0.102	0.093	0.143	0.148	0.148	0.148	
T STATISTICS	1.602	1.311	1.892	1.328	0.970	2.040	1.893	1.893	1.893		

AVERAGE INSTANT COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPCNS

SWITCHING TOWARD AND CCUPON USAGE = 0
SWITCHING AWAY AND COUPON USAGE = 0
LOYAY TO TEST AND COUPCN USAGE = 0
CTHER SWITCHING ANC COUPON USAGE = 0
LOYAL TO CTHER AND COUPCN USAGE = 0

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
0 -----> X	1.	5.	2.	5.	1.	2.	3.	0.	2.	1.	22.
X -----> 0	1.	7.	2.	5.	0.	1.	1.	0.	3.	1.	21.
X -----> X	12.	5.	8.	7.	4.	5.	6.	0.	1.	2.	50.
0 -----> 0	78.	75.	67.	64.	43.	52.	50.	6.	30.	20.	485.
0 <----> 0	10.	4.	5.	9.	0.	0.	0.	0.	0.	0.	28.
TOTAL	102.	96.	84.	90.	48.	60.	60.	6.	36.	24.	606.
TRIAL (CCL/MCD REG)	0.011	0.060	0.027	0.064	0.023	0.037	0.057	0.000	0.063	0.048	
TRIAL (CCL/MCD ASC)	0.011	0.035	0.032	0.040	0.038	0.038	0.040	0.039	0.041	0.041	
TRIAL (COL/MCD DEC)	0.041	0.047	0.044	0.049	0.043	0.048	0.054	0.051	0.057	0.048	
NET (CCL/MCD REG)	0.500	0.417	0.500	0.500	1.000	0.667	0.750	0.000	0.400	0.500	
NET (CCL/MCD ASC)	0.500	0.429	0.444	0.464	0.483	0.500	0.528	0.528	0.512	0.512	
NET (COL/MCD DEC)	0.512	0.512	0.552	0.560	0.600	0.571	0.545	0.429	0.429	0.500	
REPEAT (COL/MCD REG)	0.923	0.417	0.800	0.583	1.000	0.833	0.857	0.000	0.250	0.667	
REPEAT (COL/MCD ASC)	0.923	0.680	0.714	0.681	0.706	0.719	0.734	0.734	0.706	0.704	
REPEAT (CCL/MCD DEC)	0.704	0.655	0.717	0.694	0.750	0.700	0.643	0.429	0.429	0.667	
GAIN (% OF POP REG)	0.000	-0.021	0.000	0.000	0.021	0.017	0.033	0.000	-0.028	0.000	
GAIN (% OF POP ASC)	0.000	-0.010	-0.007	-0.005	-0.002	0.000	0.004	0.004	0.002	0.002	
GAIN (% OF POP DEC)	0.002	0.002	0.007	0.009	0.013	0.011	0.008	-0.015	-0.017	0.000	
TRIAL (% OF POP REG)	0.010	0.052	0.024	0.056	0.021	0.033	0.050	0.000	0.056	0.042	
TRIAL (% OF POP ASC)	0.010	0.030	0.028	0.035	0.033	0.033	0.035	0.035	0.036	0.036	
TRIAL (% OF POP DEC)	0.036	0.042	0.039	0.043	0.038	0.043	0.048	0.045	0.050	0.042	
NET (% OF POP REG)	0.127	0.104	0.119	0.133	0.104	0.117	0.150	0.000	0.083	0.125	
NET (% OF POP ASC)	0.127	0.116	0.117	0.121	0.119	0.119	0.122	0.121	0.119	0.119	
NET (% OF POP DEC)	0.119	0.117	0.120	0.120	0.115	0.118	0.119	0.091	0.100	0.125	
REPEAT (% OF POP REG)	0.118	0.052	0.095	0.078	0.083	0.083	0.100	0.000	0.028	0.083	
REPEAT (% OF POP ASC)	0.118	0.086	0.089	0.086	0.086	0.085	0.087	0.086	0.082	0.083	
REPEAT (% OF POP DEC)	0.083	0.075	0.081	0.077	0.077	0.075	0.071	0.045	0.050	0.083	

AVERAGE INSTANT COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	16.	4.	2.	0.	0.	0.	0.	0.	0.	0.	22.
X -----> O	13.	4.	2.	2.	0.	0.	0.	0.	0.	0.	21.
X -----> X	42.	5.	1.	2.	0.	0.	0.	0.	0.	0.	50.
O -----> O	322.	99.	38.	19.	4.	3.	0.	0.	0.	0.	485.
O <----> O	24.	3.	1.	0.	0.	0.	0.	0.	0.	0.	28.
TOTAL	417.	115.	44.	23.	4.	3.	0.	0.	0.	0.	606.
TRIAL (COL/MCD REG)	0.044	0.038	0.049	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.044	0.043	0.043	0.042	0.041	0.041	0.041	0.041	0.041	0.041	
TRIAL (COL/MCD DEC)	0.041	0.035	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.519	-0.497	-1.083	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.552	0.500	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.552	0.541	0.537	0.512	0.512	0.512	0.512	0.512	0.512	0.512	
NET (COL/MCD DEC)	0.512	0.429	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.764	0.556	0.333	0.500	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.764	0.734	0.716	0.704	0.704	0.704	0.704	0.704	0.704	0.704	
REPEAT (COL/MCD DEC)	0.704	0.500	0.429	0.500	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.007	0.000	0.000	-0.087	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.007	0.006	0.005	0.002	0.002	0.002	0.002	0.002	0.002	0.002	
GAIN (% OF POP DEC)	0.002	-0.011	-0.027	-0.067	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.038	0.035	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.038	0.038	0.038	0.037	0.036	0.036	0.036	0.036	0.036	0.036	
TRIAL (% OF POP DEC)	0.036	0.032	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.404	-0.455	-1.090	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.139	0.078	0.068	0.087	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.139	0.126	0.122	0.120	0.119	0.119	0.119	0.119	0.119	0.119	
NET (% OF POP DEC)	0.119	0.074	0.068	0.067	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-2.291	-1.454	-0.905	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.101	0.043	0.023	0.087	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.101	0.088	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	
REPEAT (% OF POP DEC)	0.083	0.042	0.041	0.067	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-2.420	-1.400	-0.323	0.000	0.000	0.000	0.000	0.000	0.000		

AVERAGE INSTANT COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	3.	4.	2.	5.	1.	3.	1.	0.	2.	1.	22.
X -----> O	1.	8.	4.	2.	1.	2.	2.	0.	1.	0.	21.
X -----> X	12.	8.	8.	7.	2.	4.	6.	0.	1.	2.	50.
O -----> O	93.	89.	75.	57.	55.	47.	34.	12.	12.	11.	485.
O <----> O	10.	6.	6.	6.	0.	0.	0.	0.	0.	0.	28.
TOTAL	119.	115.	95.	77.	59.	56.	43.	12.	16.	14.	606.
TRIAL (COL/MCD REG)	0.028	0.040	0.024	0.074	0.018	0.060	0.029	0.000	0.143	0.083	
TRIAL (COL/MCD ASC)	0.028	0.034	0.031	0.039	0.036	0.039	0.038	0.037	0.040	0.041	
TRIAL (COL/MCD DEC)	0.041	0.044	0.045	0.053	0.045	0.057	0.055	0.079	0.115	0.083	
NET (COL/MCD REG)	0.750	0.333	0.333	0.714	0.500	0.600	0.333	0.000	0.667	1.000	
NET (COL/MCD ASC)	0.750	0.438	0.409	0.483	0.484	0.500	0.487	0.487	0.500	0.512	
NET (COL/MCD DEC)	0.512	0.487	0.556	0.619	0.571	0.583	0.571	0.750	0.750	1.000	
REPEAT (COL/MCD REG)	0.923	0.500	0.667	0.778	0.667	0.667	0.750	0.000	0.500	1.000	
REPEAT (COL/MCD ASC)	0.923	0.690	0.683	0.700	0.698	0.695	0.701	0.701	0.696	0.704	
REPEAT (COL/MCD DEC)	0.704	0.655	0.714	0.733	0.714	0.722	0.750	0.750	0.750	1.000	
GAIN (% OF POP REG)	0.017	-0.035	-0.021	0.039	0.000	0.018	-0.023	0.000	0.063	0.071	
GAIN (% OF POP ASC)	0.017	-0.009	-0.012	-0.002	-0.002	0.000	-0.002	-0.002	0.000	0.002	
GAIN (% OF POP DEC)	0.002	-0.002	0.008	0.018	0.010	0.014	0.012	0.048	0.067	0.071	
TRIAL (% OF POP REG)	0.025	0.035	0.021	0.065	0.017	0.054	0.023	0.000	0.125	0.071	
TRIAL (% OF POP ASC)	0.025	0.030	0.027	0.034	0.032	0.035	0.034	0.033	0.035	0.036	
TRIAL (% OF POP DEC)	0.036	0.039	0.040	0.047	0.040	0.050	0.047	0.071	0.100	0.071	
NET (% OF POP REG)	0.126	0.104	0.105	0.156	0.051	0.125	0.163	0.000	0.188	0.214	
NET (% OF POP ASC)	0.126	0.115	0.112	0.121	0.112	0.113	0.117	0.115	0.117	0.119	
NET (% OF POP DEC)	0.119	0.117	0.121	0.126	0.115	0.142	0.153	0.143	0.200	0.214	
REPEAT (% OF POP REG)	0.101	0.070	0.084	0.091	0.034	0.071	0.140	0.000	0.063	0.143	
REPEAT (% OF POP ASC)	0.101	0.085	0.085	0.086	0.080	0.079	0.083	0.082	0.081	0.083	
REPEAT (% OF POP DEC)	0.083	0.078	0.081	0.079	0.075	0.092	0.106	0.071	0.100	0.143	

AVERAGE INSTANT COFFEE 7-DAY WINDCW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	6.	1.	4.	3.	5.	1.	1.	1.	0.	0.	0.	22.
X -----> O	2.	1.	3.	3.	10.	2.	0.	0.	0.	0.	0.	21.
X -----> X	13.	1.	7.	7.	6.	15.	0.	1.	0.	0.	0.	50.
O -----> O	82.	50.	63.	73.	85.	102.	23.	3.	2.	2.	0.	485.
O <----> O	0.	0.	6.	4.	6.	11.	1.	0.	0.	0.	0.	28.
TOTAL	103.	53.	83.	90.	112.	131.	25.	5.	2.	2.	0.	606.
TRIAL (COL/MCD REG)	0.068	0.020	0.055	0.037	0.052	0.009	0.040	0.250	0.000	0.000	0.000	
TRIAL (CGL/MCD ASC)	0.068	0.050	0.052	0.048	0.049	0.040	0.040	0.041	0.041	0.041	0.041	
TRIAL (COL/MCD DEC)	0.041	0.036	0.038	0.034	0.033	0.020	0.061	0.125	0.000	0.000	0.000	
NET (COL/MCD REG)	0.750	0.500	0.571	0.500	0.333	0.333	1.000	1.000	0.000	0.000	0.000	
NET (CGL/MCD ASC)	0.750	0.700	0.647	0.609	0.500	0.488	0.500	0.512	0.512	0.512	0.512	
NET (COL/MCD DEC)	0.512	0.457	0.455	0.423	0.400	0.600	1.000	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.867	0.500	0.700	0.700	0.375	0.882	0.000	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.867	0.824	0.778	0.757	0.642	0.700	0.700	0.704	0.704	0.704	0.704	
REPEAT (COL/MCD DEC)	0.704	0.661	0.667	0.659	0.647	0.889	1.000	1.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.039	0.000	0.012	0.000	-0.045	-0.008	0.040	0.200	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.039	0.026	0.021	0.015	0.000	-0.002	0.000	0.002	0.002	0.002	0.002	
GAIN (% CF POP DEC)	0.002	-0.006	-0.007	-0.011	-0.014	0.006	0.059	0.111	0.000	0.000	0.000	
TRIAL (% OF PCP REG)	0.058	0.019	0.048	0.033	0.045	0.008	0.040	0.200	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.058	0.045	0.046	0.043	0.043	0.035	0.035	0.037	0.036	0.036	0.036	
TRIAL (% CF POP DEC)	0.036	0.032	0.033	0.030	0.029	0.018	0.059	0.111	0.000	0.000	0.000	
NET (% OF POP REG)	0.184	0.038	0.133	0.111	0.098	0.122	0.040	0.400	0.000	0.000	0.000	
NET (% OF POP ASC)	0.184	0.135	0.134	0.128	0.120	0.121	0.117	0.120	0.119	0.119	0.119	
NET (% OF POP DEC)	0.119	0.105	0.113	0.109	0.108	0.115	0.088	0.222	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.126	0.019	0.084	0.078	0.054	0.115	0.000	0.200	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.126	0.090	0.088	0.085	0.077	0.086	0.082	0.083	0.083	0.083	0.083	
REPEAT (% OF POP DEC)	0.083	0.074	0.080	0.079	0.079	0.097	0.029	0.111	0.000	0.000	0.000	

AVERAGE INSTANT COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	1.	3.	5.	5.	6.	1.	1.	0.	0.	0.	22.
X -----> O	0.	1.	1.	3.	3.	9.	4.	0.	0.	0.	0.	21.
X -----> X	1.	2.	4.	9.	10.	22.	1.	0.	1.	0.	0.	50.
O -----> O	7.	10.	46.	91.	70.	188.	50.	13.	6.	3.	1.	485.
O <----> O	0.	0.	0.	4.	4.	16.	4.	0.	0.	0.	0.	28.
TOTAL	8.	14.	54.	112.	92.	241.	60.	14.	7.	3.	1.	606.
TRIAL (COL/MCD REG)	0.000	0.091	0.061	0.050	0.063	0.029	0.018	0.071	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.056	0.060	0.054	0.057	0.044	0.041	0.042	0.041	0.041	0.041	
TRIAL (COL/MCD DEC)	0.041	0.042	0.041	0.038	0.035	0.028	0.025	0.042	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	-0.819	-1.002	-1.695	-0.762	0.013	0.000	0.000	0.000		
NET (COL/MCD REG)	0.000	0.500	0.750	0.625	0.625	0.400	0.200	1.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.500	0.667	0.643	0.636	0.541	0.500	0.512	0.512	0.512	0.512	
NET (COL/MCD DEC)	0.512	0.512	0.512	0.486	0.448	0.381	0.333	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	0.667	0.800	0.750	0.769	0.710	0.200	0.000	1.000	0.000	0.000	
REPEAT (COL/MCD ASC)	1.000	0.750	0.778	0.762	0.765	0.738	0.700	0.700	0.704	0.704	0.704	
REPEAT (COL/MCD DEC)	0.704	0.700	0.701	0.694	0.680	0.649	0.333	1.000	1.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	0.037	0.018	0.022	-0.012	-0.050	0.071	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	0.026	0.021	0.021	0.006	0.000	0.002	0.002	0.002	0.002	
GAIN (% OF POP DEC)	0.002	0.002	0.002	-0.002	-0.007	-0.015	-0.024	0.040	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.071	0.056	0.045	0.054	0.025	0.017	0.071	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.045	0.053	0.048	0.050	0.038	0.036	0.037	0.037	0.036	0.036	
TRIAL (% OF POP DEC)	0.036	0.037	0.036	0.034	0.031	0.025	0.024	0.040	0.000	0.000	0.000	
T STATISTICS	0.000	-0.234	-0.813	-1.020	-1.666	-0.668	0.095	0.000	0.000	0.000		
NET (% OF POP REG)	0.125	0.214	0.130	0.125	0.163	0.116	0.033	0.071	0.143	0.000	0.000	
NET (% OF POP ASC)	0.125	0.182	0.145	0.133	0.143	0.131	0.120	0.119	0.120	0.119	0.119	
NET (% OF POP DEC)	0.119	0.119	0.116	0.115	0.112	0.098	0.047	0.080	0.091	0.000	0.000	
T STATISTICS	0.000	-0.930	-0.747	-0.722	-1.691	-2.168	-0.576	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.125	0.143	0.074	0.080	0.109	0.091	0.017	0.000	0.143	0.000	0.000	
REPEAT (% OF POP ASC)	0.125	0.136	0.092	0.085	0.093	0.092	0.084	0.082	0.083	0.083	0.083	
REPEAT (% OF POP DEC)	0.083	0.082	0.080	0.081	0.081	0.074	0.024	0.040	0.091	0.000	0.000	
T STATISTICS	0.000	-0.935	-0.325	-0.156	-0.856	-2.095	-0.741	0.000	0.000	0.000		

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AVERAGE INSTANT COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
0 -----> X	16.	1.	1.	2.	0.	0.	0.	0.	0.	2.	22.
X -----> 0	13.	0.	1.	6.	0.	1.	0.	0.	0.	0.	21.
X -----> X	42.	0.	3.	1.	0.	3.	0.	1.	0.	0.	50.
0 -----> 0	322.	29.	38.	36.	6.	24.	11.	1.	3.	15.	485.
0 <----> 0	24.	0.	0.	2.	0.	1.	1.	0.	0.	0.	28.
TOTAL	417.	30.	43.	47.	6.	29.	12.	2.	3.	17.	606.
TRIAL (COL/MCD REG)	0.044	0.033	0.026	0.050	0.000	0.000	0.000	0.000	0.000	0.118	
TRIAL (COL/MCD ASC)	0.044	0.043	0.042	0.042	0.042	0.040	0.039	0.039	0.039	0.041	
TRIAL (COL/MCD DEC)	0.041	0.035	0.035	0.038	0.031	0.034	0.061	0.095	0.100	0.118	
T STATISTICS	-0.519	-0.433	-0.152	-0.424	-0.270	0.582	1.274	1.352	0.000		
NET (COL/MCD REG)	0.552	1.000	0.500	0.250	0.000	0.000	0.000	0.000	0.000	1.000	
NET (COL/MCD ASC)	0.552	0.567	0.563	0.500	0.500	0.488	0.488	0.488	0.488	0.512	
NET (COL/MCD DEC)	0.512	0.429	0.385	0.364	0.667	0.667	1.000	1.000	1.000	1.000	
REPEAT (COL/MCD REG)	0.764	0.000	0.750	0.143	0.000	0.750	0.000	1.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.764	0.764	0.763	0.697	0.697	0.700	0.700	0.704	0.704	0.704	
REPEAT (COL/MCD DEC)	0.704	0.500	0.500	0.417	0.800	0.800	1.000	1.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.007	0.033	0.000	-0.085	0.000	-0.034	0.000	0.000	0.000	0.118	
GAIN (% OF POP ASC)	0.007	0.009	0.008	0.000	0.000	-0.002	-0.002	-0.002	-0.002	0.002	
GAIN (% OF POP DEC)	0.002	-0.011	-0.019	-0.026	0.014	0.016	0.059	0.091	0.100	0.118	
TRIAL (% OF POP REG)	0.038	0.033	0.023	0.043	0.000	0.000	0.000	0.000	0.000	0.118	
TRIAL (% OF POP ASC)	0.038	0.038	0.037	0.037	0.037	0.035	0.034	0.034	0.034	0.036	
TRIAL (% OF POP DEC)	0.036	0.032	0.031	0.034	0.029	0.032	0.059	0.091	0.100	0.118	
T STATISTICS	-0.404	-0.381	-0.117	-0.345	-0.204	0.723	1.395	1.549	0.000		
NET (% OF POP REG)	0.139	0.033	0.093	0.064	0.000	0.103	0.000	0.500	0.000	0.118	
NET (% OF POP ASC)	0.139	0.132	0.129	0.123	0.122	0.121	0.118	0.119	0.119	0.119	
NET (% OF POP DEC)	0.119	0.074	0.082	0.078	0.087	0.095	0.088	0.136	0.100	0.118	
T STATISTICS	-2.291	-1.681	-1.526	-0.869	-0.611	-0.567	0.259	-0.264	0.000		
REPEAT (% OF POP REG)	0.101	0.000	0.070	0.021	0.000	0.103	0.000	0.500	0.000	0.000	
REPEAT (% OF POP ASC)	0.101	0.094	0.092	0.086	0.085	0.086	0.084	0.085	0.085	0.083	
REPEAT (% OF POP DEC)	0.083	0.042	0.050	0.043	0.058	0.063	0.029	0.045	0.000	0.000	
T STATISTICS	-2.420	-1.718	-1.715	-0.787	-0.580	-1.158	-0.643	-1.364	0.000		

FOLGERS INSTANT COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS

SHARE OF TRANSACTIONS = 0.116
SHARE OF EXPOSURES = 0.218

SWITCHING TOWARD AND COUPON USAGE = 3
SWITCHING AWAY AND COUPON USAGE = 5
LOYAY TO TEST AND COUPON USAGE = 3
OTHER SWITCHING AND COUPON USAGE = 64
LOYAL TO OTHER AND COUPON USAGE = 5

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	2.	0.	1.	1.	2.	0.	1.	0.	0.	0.	7.
X -----> O	0.	4.	4.	1.	0.	0.	0.	0.	2.	1.	12.
X -----> X	3.	4.	0.	3.	2.	0.	1.	0.	0.	0.	13.
O -----> O	27.	29.	21.	18.	11.	15.	8.	2.	5.	4.	140.
O <----> O	3.	2.	2.	1.	0.	1.	0.	0.	0.	0.	9.
TOTAL	35.	39.	28.	24.	15.	16.	10.	2.	7.	5.	181.
TRIAL (COL/MCD REG)	0.063	0.000	0.042	0.050	0.154	0.000	0.111	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.063	0.032	0.034	0.037	0.050	0.044	0.048	0.048	0.046	0.045	
TRIAL (COL/MCD DEC)	0.045	0.040	0.054	0.058	0.061	0.028	0.050	0.000	0.000	0.000	
NET (COL/MCD REG)	1.000	0.000	0.200	0.500	1.000	0.000	1.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	1.000	0.333	0.273	0.308	0.400	0.400	0.438	0.438	0.389	0.368	
NET (COL/MCD DEC)	0.368	0.294	0.385	0.500	0.500	0.250	0.250	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	0.500	0.000	0.750	1.000	0.000	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	1.000	0.636	0.467	0.526	0.571	0.571	0.591	0.591	0.542	0.520	
REPEAT (COL/MCD DEC)	0.520	0.455	0.429	0.600	0.500	0.250	0.250	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.057	-0.103	-0.107	0.000	0.133	0.000	0.100	0.000	-0.286	-0.200	
GAIN (% OF POP ASC)	0.057	-0.027	-0.049	-0.040	-0.021	-0.019	-0.012	-0.012	-0.023	-0.028	
GAIN (% OF POP DEC)	-0.028	-0.048	-0.028	0.000	0.000	-0.050	-0.083	-0.214	-0.250	-0.200	
TRIAL (% OF POP REG)	0.057	0.000	0.036	0.042	0.133	0.000	0.100	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.057	0.027	0.029	0.032	0.043	0.038	0.042	0.041	0.040	0.039	
TRIAL (% OF POP DEC)	0.039	0.034	0.047	0.051	0.055	0.025	0.042	0.000	0.000	0.000	
NET (% OF POP REG)	0.143	0.103	0.036	0.167	0.267	0.000	0.200	0.000	0.000	0.000	
NET (% OF POP ASC)	0.143	0.122	0.098	0.111	0.128	0.115	0.120	0.118	0.114	0.110	
NET (% OF POP DEC)	0.110	0.103	0.103	0.127	0.109	0.050	0.083	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.086	0.103	0.000	0.125	0.133	0.000	0.100	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.086	0.095	0.069	0.079	0.085	0.076	0.078	0.077	0.074	0.072	
REPEAT (% OF POP DEC)	0.072	0.068	0.056	0.076	0.055	0.025	0.042	0.000	0.000	0.000	

FOLGERS INSTANT COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
0 -----> X	5.	2.	0.	0.	0.	0.	0.	0.	0.	0.	7.
X -----> 0	8.	1.	1.	2.	0.	0.	0.	0.	0.	0.	12.
X -----> X	9.	2.	2.	0.	0.	0.	0.	0.	0.	0.	13.
0 -----> 0	89.	33.	12.	4.	1.	1.	0.	0.	0.	0.	140.
0 <----> 0	8.	1.	0.	0.	0.	0.	0.	0.	0.	0.	9.
TOTAL	119.	39.	15.	6.	1.	1.	0.	0.	0.	0.	181.
TRIAL (COL/MCD REG)	0.049	0.056	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.049	0.051	0.047	0.045	0.045	0.049	0.045	0.045	0.045	0.045	
TRIAL (COL/MCD DEC)	0.045	0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.344	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.385	0.667	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.385	0.438	0.412	0.368	0.368	0.368	0.368	0.368	0.368	0.368	
NET (COL/MCD DEC)	0.368	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.529	0.667	0.667	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.529	0.550	0.565	0.520	0.520	0.520	0.520	0.520	0.520	0.520	
REPEAT (COL/MCD DEC)	0.520	0.500	0.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.025	0.026	-0.067	-0.333	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.025	-0.013	-0.017	-0.028	-0.028	-0.028	-0.028	-0.028	-0.028	-0.028	
GAIN (% OF POP DEC)	-0.028	-0.032	-0.130	-0.250	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.042	0.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.042	0.044	0.040	0.039	0.039	0.039	0.039	0.039	0.039	0.039	
TRIAL (% OF POP DEC)	0.039	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.323	-1.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.118	0.103	0.133	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.118	0.114	0.116	0.112	0.111	0.110	0.110	0.110	0.110	0.110	
NET (% OF POP DEC)	0.110	0.097	0.087	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.425	-0.385	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.076	0.051	0.133	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.076	0.070	0.075	0.073	0.072	0.072	0.072	0.072	0.072	0.072	
REPEAT (% OF POP DEC)	0.072	0.065	0.087	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.275	0.301	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

FOLGERS INSTANT COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	2.	0.	1.	2.	1.	1.	0.	0.	0.	0.	7.
X -----> O	0.	4.	5.	0.	0.	1.	2.	0.	0.	0.	12.
X -----> X	4.	4.	2.	1.	1.	0.	1.	0.	0.	0.	13.
O -----> O	33.	36.	20.	16.	14.	9.	6.	1.	3.	2.	140.
O <----> O	3.	2.	2.	1.	1.	0.	0.	0.	0.	0.	9.
TOTAL	42.	46.	30.	20.	17.	11.	9.	1.	3.	2.	181.
TRIAL (COL/MCD REG)	0.053	0.000	0.043	0.105	0.063	0.100	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.053	0.026	0.030	0.042	0.045	0.049	0.047	0.046	0.045	0.045	
TRIAL (COL/MCD DEC)	0.045	0.042	0.063	0.070	0.053	0.045	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	1.000	0.000	0.167	1.000	1.000	0.500	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	1.000	0.333	0.250	0.357	0.400	0.412	0.368	0.368	0.368	0.368	
NET (COL/MCD DEC)	0.368	0.294	0.385	0.571	0.400	0.250	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	0.500	0.286	1.000	1.000	0.000	0.333	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	1.000	0.667	0.526	0.550	0.571	0.545	0.520	0.520	0.520	0.520	
REPEAT (COL/MCD DEC)	0.520	0.429	0.385	0.500	0.400	0.250	0.333	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.048	-0.087	-0.133	0.100	0.059	0.000	-0.222	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.048	-0.023	-0.051	-0.029	-0.019	-0.018	-0.029	-0.028	-0.028	-0.028	
GAIN (% OF POP DEC)	-0.028	-0.050	-0.032	0.016	-0.023	-0.077	-0.133	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.048	0.000	0.033	0.100	0.059	0.091	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.048	0.023	0.025	0.036	0.039	0.042	0.040	0.040	0.039	0.039	
TRIAL (% OF POP DEC)	0.039	0.036	0.054	0.063	0.047	0.038	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.143	0.087	0.100	0.150	0.118	0.091	0.111	0.000	0.000	0.000	
NET (% OF POP ASC)	0.143	0.114	0.110	0.116	0.116	0.114	0.114	0.114	0.112	0.110	
NET (% OF POP DEC)	0.110	0.101	0.108	0.111	0.093	0.077	0.067	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.095	0.087	0.067	0.050	0.059	0.000	0.111	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.095	0.091	0.085	0.080	0.077	0.072	0.074	0.074	0.073	0.072	
REPEAT (% OF POP DEC)	0.072	0.065	0.054	0.048	0.047	0.038	0.067	0.000	0.000	0.000	

FOLGERS INSTANT COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O ----> X	0.	2.	1.	2.	0.	2.	0.	0.	0.	0.	0.	7.
X ----> O	0.	1.	1.	5.	5.	0.	0.	0.	0.	0.	0.	12.
X ----> X	1.	1.	1.	0.	4.	4.	2.	0.	0.	0.	0.	13.
O ----> O	16.	6.	20.	19.	29.	39.	8.	3.	0.	0.	0.	140.
O <----> O	0.	0.	2.	2.	2.	3.	0.	0.	0.	0.	0.	9.
TOTAL	17.	10.	25.	28.	40.	48.	10.	3.	0.	0.	0.	181.
TRIAL (COL/MCD REG)	0.000	0.250	0.043	0.087	0.000	0.045	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.083	0.064	0.071	0.050	0.048	0.046	0.045	0.045	0.045	0.045	
TRIAL (COL/MCD DEC)	0.045	0.050	0.038	0.037	0.023	0.036	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.000	0.667	0.500	0.286	0.000	1.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.667	0.600	0.417	0.294	0.368	0.368	0.368	0.368	0.368	0.368	
NET (COL/MCD DEC)	0.368	0.368	0.313	0.286	0.286	1.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	0.500	0.500	0.000	0.444	1.000	1.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	1.000	0.667	0.600	0.300	0.368	0.478	0.520	0.520	0.520	0.520	0.520	
REPEAT (COL/MCD DEC)	0.520	0.500	0.500	0.500	0.667	1.000	1.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.000	0.100	0.000	-0.107	-0.125	0.042	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.037	0.019	-0.025	-0.058	-0.030	-0.028	-0.028	-0.028	-0.028	-0.028	
GAIN (% OF POP DEC)	-0.028	-0.030	-0.039	-0.047	-0.030	0.033	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.200	0.040	0.071	0.000	0.042	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.074	0.058	0.063	0.042	0.042	0.039	0.039	0.039	0.039	0.039	
TRIAL (% OF POP DEC)	0.039	0.043	0.032	0.031	0.020	0.033	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.059	0.300	0.080	0.071	0.100	0.125	0.200	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.059	0.148	0.115	0.100	0.100	0.107	0.112	0.110	0.110	0.110	0.110	
NET (% OF POP DEC)	0.110	0.116	0.104	0.109	0.119	0.131	0.154	0.000	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.059	0.100	0.040	0.000	0.100	0.083	0.200	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.059	0.074	0.058	0.037	0.058	0.065	0.073	0.072	0.072	0.072	0.072	
REPEAT (% OF POP DEC)	0.072	0.073	0.071	0.078	0.099	0.098	0.154	0.000	0.000	0.000	0.000	

FOLGERS INSTANT COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
0 -----> X	0.	0.	0.	2.	2.	3.	0.	0.	0.	0.	0.	7.
X -----> 0	0.	0.	0.	3.	2.	7.	0.	0.	0.	0.	0.	12.
X -----> X	0.	0.	0.	1.	2.	8.	1.	1.	0.	0.	0.	13.
0 -----> 0	3.	1.	7.	26.	12.	61.	20.	5.	4.	1.	0.	140.
0 <----> 0	0.	0.	0.	2.	0.	7.	0.	0.	0.	0.	0.	9.
TOTAL	3.	1.	7.	34.	18.	86.	21.	6.	4.	1.	0.	181.
TRIAL (COL/MCD REG)	0.000	0.000	0.000	0.067	0.143	0.042	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.000	0.000	0.049	0.073	0.056	0.048	0.046	0.045	0.045	0.045	
TRIAL (COL/MCD DEC)	0.045	0.046	0.046	0.048	0.043	0.030	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	-0.141	-1.240	-1.321	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.000	0.000	0.000	0.400	0.500	0.300	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.000	0.000	0.400	0.444	0.368	0.368	0.368	0.368	0.368	0.368	
NET (COL/MCD DEC)	0.368	0.368	0.368	0.368	0.357	0.300	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	0.000	0.000	0.250	0.500	0.533	1.000	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.000	0.000	0.250	0.375	0.478	0.500	0.520	0.520	0.520	0.520	
REPEAT (COL/MCD DEC)	0.520	0.520	0.520	0.520	0.571	0.588	1.000	1.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	0.000	-0.029	0.000	-0.047	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	0.000	-0.022	-0.016	-0.034	-0.029	-0.028	-0.028	-0.028	-0.028	
GAIN (% OF POP DEC)	-0.028	-0.028	-0.028	-0.029	-0.029	-0.034	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.000	0.000	0.059	0.111	0.035	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.000	0.044	0.063	0.047	0.041	0.040	0.039	0.039	0.039	
TRIAL (% OF POP DEC)	0.039	0.039	0.040	0.041	0.037	0.025	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	-0.231	-1.262	-1.231	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.000	0.000	0.000	0.088	0.222	0.128	0.048	0.167	0.000	0.000	0.000	
NET (% OF POP ASC)	0.000	0.000	0.000	0.067	0.111	0.121	0.112	0.114	0.111	0.110	0.110	
NET (% OF POP DEC)	0.110	0.112	0.113	0.118	0.125	0.110	0.063	0.091	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	1.081	-0.019	-0.941	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.000	0.000	0.000	0.029	0.111	0.093	0.048	0.167	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.000	0.000	0.022	0.048	0.074	0.071	0.074	0.072	0.072	0.072	
REPEAT (% OF POP DEC)	0.072	0.073	0.073	0.076	0.088	0.085	0.063	0.091	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	1.486	0.921	-0.222	0.000	0.000	0.000	0.000		

FOLGERS INSTANT COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	5.	1.	1.	0.	0.	0.	0.	0.	0.	0.	7.
X -----> O	8.	0.	1.	3.	0.	0.	0.	0.	0.	0.	12.
X -----> X	9.	0.	0.	1.	0.	1.	1.	0.	0.	1.	13.
O -----> O	89.	4.	14.	10.	0.	12.	4.	1.	0.	6.	140.
O <----> O	8.	0.	1.	0.	0.	0.	0.	0.	0.	0.	9.
TOTAL	119.	5.	17.	14.	0.	13.	5.	1.	0.	7.	181.
TRIAL (COL/MCD REG)	0.049	0.200	0.063	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.049	0.056	0.057	0.053	0.053	0.048	0.047	0.047	0.047	0.045	
TRIAL (COL/MCD DEC)	0.045	0.037	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.344	-0.999	-1.402	-1.126	-1.126	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.385	1.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.385	0.429	0.438	0.368	0.368	0.368	0.368	0.368	0.368	0.368	
NET (COL/MCD DEC)	0.368	0.333	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.529	0.000	0.000	0.250	0.000	1.000	1.000	0.000	0.000	1.000	
REPEAT (COL/MCD ASC)	0.529	0.529	0.500	0.455	0.455	0.478	0.500	0.500	0.500	0.520	
REPEAT (COL/MCD DEC)	0.520	0.500	0.500	0.571	1.000	1.000	1.000	1.000	1.000	1.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.025	0.200	0.000	-0.214	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.025	-0.016	-0.014	-0.032	-0.032	-0.030	-0.029	-0.029	-0.029	-0.028	
GAIN (% OF POP DEC)	-0.028	-0.032	-0.053	-0.075	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.042	0.200	0.059	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.042	0.048	0.050	0.045	0.045	0.042	0.040	0.040	0.040	0.039	
TRIAL (% OF POP DEC)	0.039	0.032	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.323	-1.000	-1.437	-1.105	-1.105	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.118	0.200	0.059	0.071	0.000	0.077	0.200	0.000	0.000	0.143	
NET (% OF POP ASC)	0.118	0.121	0.113	0.110	0.110	0.107	0.110	0.109	0.109	0.110	
NET (% OF POP DEC)	0.110	0.097	0.088	0.100	0.115	0.115	0.154	0.125	0.143	0.143	
T STATISTICS	-0.425	-0.663	-0.240	0.086	0.086	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.076	0.000	0.000	0.071	0.000	0.077	0.200	0.000	0.000	0.143	
REPEAT (% OF POP ASC)	0.076	0.073	0.064	0.065	0.065	0.065	0.069	0.069	0.069	0.072	
REPEAT (% OF POP DEC)	0.072	0.065	0.070	0.100	0.115	0.115	0.154	0.125	0.143	0.143	
T STATISTICS	-0.275	-0.058	0.782	0.930	0.930	0.000	0.000	0.000	0.000		

FOLGERS INSTANT COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

SHARE OF TRANSACTIONS = 0.116
SHARE OF EXPOSURES = 0.219

SWITCHING TOWARD AND COUPON USAGE = 3
SWITCHING AWAY AND COUPON USAGE = 5
LOYAY TO TEST AND COUPON USAGE = 3
OTHER SWITCHING AND COUPON USAGE = 64
LOYAL TO OTHER AND COUPON USAGE = 5

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	1.	0.	1.	0.	1.	0.	0.	0.	0.	0.	3.
X -----> O	0.	1.	4.	0.	0.	0.	0.	0.	0.	0.	5.
X -----> X	0.	2.	0.	1.	0.	0.	0.	0.	0.	0.	3.
O -----> O	16.	18.	8.	8.	6.	5.	0.	1.	1.	1.	64.
O <----> O	1.	2.	1.	0.	0.	1.	0.	0.	0.	0.	5.
TOTAL	18.	23.	14.	9.	7.	6.	0.	1.	1.	1.	80.
TRIAL (COL/MCD REG)	0.056	0.000	0.100	0.000	0.143	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.056	0.026	0.042	0.036	0.048	0.043	0.043	0.043	0.042	0.042	
TRIAL (COL/MCD DEC)	0.042	0.037	0.059	0.042	0.063	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	1.000	0.000	0.200	0.000	1.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	1.000	0.500	0.286	0.286	0.375	0.375	0.375	0.375	0.375	0.375	
NET (COL/MCD DEC)	0.375	0.286	0.333	1.000	1.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	0.667	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.667	0.286	0.375	0.375	0.375	0.375	0.375	0.375	0.375	
REPEAT (COL/MCD DEC)	0.375	0.375	0.200	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF PUP REG)	0.056	-0.043	-0.214	0.000	0.143	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.056	0.000	-0.055	-0.047	-0.028	-0.026	-0.026	-0.026	-0.025	-0.025	
GAIN (% OF POP DEC)	-0.025	-0.048	-0.051	0.040	0.063	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.056	0.000	0.071	0.000	0.143	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.056	0.024	0.036	0.031	0.042	0.039	0.039	0.038	0.038	0.037	
TRIAL (% OF POP DEC)	0.037	0.032	0.051	0.040	0.063	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.056	0.087	0.071	0.111	0.143	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.056	0.073	0.073	0.078	0.085	0.078	0.078	0.077	0.076	0.075	
NET (% OF POP DEC)	0.075	0.081	0.077	0.080	0.063	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.000	0.087	0.000	0.111	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.049	0.036	0.047	0.042	0.039	0.039	0.038	0.038	0.037	
REPEAT (% OF POP DEC)	0.037	0.048	0.026	0.040	0.000	0.000	0.000	0.000	0.000	0.000	

FOLGERS INSTANT COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
0 ------> X	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.
X ------> 0	5.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.
X ------> X	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	3.
0 ------> 0	44.	16.	4.	0.	0.	0.	0.	0.	0.	0.	64.
0 <-----> 0	4.	1.	0.	0.	0.	0.	0.	0.	0.	0.	5.
TOTAL	57.	18.	5.	0.	0.	0.	0.	0.	0.	0.	80.
TRIAL (COL/MCD REG)	0.059	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.059	0.044	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.042	
TRIAL (COL/MCD DEC)	0.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.135	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	
NET (COL/MCD DEC)	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.167	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.167	0.286	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	
REPEAT (COL/MCD DEC)	0.375	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.035	-0.027	-0.025	-0.025	-0.025	-0.025	-0.025	-0.025	-0.025	-0.025	
GAIN (% OF POP DEC)	-0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.053	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.053	0.040	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	
TRIAL (% OF POP DEC)	0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.121	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.070	0.056	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.070	0.067	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	
NET (% OF POP DEC)	0.075	0.087	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.258	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.018	0.056	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.018	0.027	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	
REPEAT (% OF POP DEC)	0.037	0.087	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	1.479	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

FOLGERS INSTANT COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	1.	0.	1.	0.	1.	0.	0.	0.	0.	0.	3.
X -----> O	0.	1.	4.	0.	0.	0.	0.	0.	0.	0.	5.
X -----> X	1.	2.	0.	0.	0.	0.	0.	0.	0.	0.	3.
O -----> O	21.	18.	7.	8.	5.	2.	2.	0.	0.	1.	64.
O <----> O	1.	2.	1.	0.	1.	0.	0.	0.	0.	0.	5.
TOTAL	24.	23.	13.	8.	7.	2.	2.	0.	0.	1.	80.
TRIAL (COL/MCD REG)	0.043	0.000	0.111	0.000	0.143	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.043	0.023	0.038	0.033	0.045	0.043	0.042	0.042	0.042	0.042	
TRIAL (COL/MCD DEC)	0.042	0.041	0.069	0.050	0.083	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	1.000	0.000	0.200	0.000	1.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	1.000	0.500	0.286	0.286	0.375	0.375	0.375	0.375	0.375	0.375	
NET (COL/MCD DEC)	0.375	0.286	0.333	1.000	1.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	0.667	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	1.000	0.750	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	
REPEAT (COL/MCD DEC)	0.375	0.286	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.042	-0.043	-0.231	0.000	0.143	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.042	0.000	-0.050	-0.044	-0.027	-0.026	-0.025	-0.025	-0.025	-0.025	
GAIN (% OF POP DEC)	-0.025	-0.054	-0.061	0.050	0.083	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.042	0.000	0.077	0.000	0.143	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.042	0.021	0.033	0.029	0.040	0.039	0.038	0.038	0.038	0.037	
TRIAL (% OF POP DEC)	0.037	0.036	0.061	0.050	0.083	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.083	0.087	0.077	0.000	0.143	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.083	0.085	0.083	0.074	0.080	0.078	0.076	0.076	0.076	0.075	
NET (% OF POP DEC)	0.075	0.071	0.061	0.050	0.083	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.042	0.087	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.042	0.064	0.050	0.044	0.040	0.039	0.038	0.038	0.038	0.037	
REPEAT (% OF POP DEC)	0.037	0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

FOLGERS INSTANT COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	1.	0.	1.	0.	1.	0.	0.	0.	0.	0.	3.
X -----> O	0.	0.	0.	4.	1.	0.	0.	0.	0.	0.	0.	5.
X -----> X	0.	0.	0.	0.	1.	0.	2.	0.	0.	0.	0.	3.
O -----> O	4.	3.	8.	7.	16.	20.	5.	1.	0.	0.	0.	64.
O <----> O	0.	0.	1.	1.	2.	1.	0.	0.	0.	0.	0.	5.
TOTAL	4.	4.	9.	13.	20.	22.	7.	1.	0.	0.	0.	80.
TRIAL (COL/MCD REG)	0.000	0.250	0.000	0.111	0.000	0.045	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.125	0.059	0.077	0.045	0.045	0.042	0.042	0.042	0.042	0.042	
TRIAL (COL/MCD DEC)	0.042	0.044	0.031	0.036	0.022	0.036	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.000	1.000	0.000	0.200	0.000	1.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	1.000	1.000	0.333	0.286	0.375	0.375	0.375	0.375	0.375	0.375	
NET (COL/MCD DEC)	0.375	0.375	0.286	0.286	0.500	1.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	0.000	0.000	0.000	0.500	0.000	1.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.000	0.000	0.000	0.167	0.167	0.375	0.375	0.375	0.375	0.375	
REPEAT (COL/MCD DEC)	0.375	0.375	0.375	0.375	0.750	1.000	1.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.000	0.250	0.000	-0.231	-0.050	0.045	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.125	0.059	-0.067	-0.060	-0.028	-0.025	-0.025	-0.025	-0.025	-0.025	
GAIN (% OF POP DEC)	-0.025	-0.026	-0.042	-0.048	0.000	0.033	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.250	0.000	0.077	0.000	0.045	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.125	0.059	0.067	0.040	0.042	0.038	0.037	0.037	0.037	0.037	
TRIAL (% OF POP DEC)	0.037	0.039	0.028	0.032	0.020	0.033	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.000	0.250	0.000	0.077	0.050	0.045	0.286	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.000	0.125	0.059	0.067	0.060	0.056	0.076	0.075	0.075	0.075	0.075	
NET (% OF POP DEC)	0.075	0.079	0.069	0.079	0.080	0.100	0.250	0.000	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.000	0.000	0.000	0.000	0.050	0.000	0.286	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.000	0.000	0.000	0.020	0.014	0.038	0.037	0.037	0.037	0.037	
REPEAT (% OF POP DEC)	0.037	0.039	0.042	0.048	0.060	0.067	0.250	0.000	0.000	0.000	0.000	

FOLGERS INSTANT COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	0.	0.	1.	0.	2.	0.	0.	0.	0.	0.	3.
X -----> O	0.	0.	0.	3.	0.	2.	0.	0.	0.	0.	0.	5.
X -----> X	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	0.	3.
O -----> O	1.	0.	3.	9.	7.	32.	9.	3.	0.	0.	0.	64.
O <----> O	0.	0.	0.	2.	0.	3.	0.	0.	0.	0.	0.	5.
TOTAL	1.	0.	3.	15.	7.	40.	10.	4.	0.	0.	0.	80.
TRIAL (COL/MCD REG)	0.000	0.000	0.000	0.083	0.000	0.054	0.000	0.000	0.000	0.000	0.000	
TRIAL (CCL/MCD ASC)	0.000	0.000	0.000	0.063	0.043	0.050	0.043	0.042	0.042	0.042	0.042	
TRIAL (COL/MCD DEC)	0.042	0.042	0.042	0.044	0.036	0.041	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	-0.053	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.000	0.000	0.000	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.000	0.000	0.250	0.250	0.375	0.375	0.375	0.375	0.375	0.375	
NET (COL/MCD DEC)	0.375	0.375	0.375	0.375	0.500	0.500	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	0.000	0.000	0.000	0.000	0.333	1.000	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.000	0.000	0.000	0.000	0.167	0.286	0.375	0.375	0.375	0.375	
REPEAT (COL/MCD DEC)	0.375	0.375	0.375	0.375	0.600	0.600	1.000	1.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	0.000	-0.133	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	0.000	-0.105	-0.077	-0.030	-0.026	-0.025	-0.025	-0.025	-0.025	
GAIN (% OF POP DEC)	-0.025	-0.025	-0.025	-0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.000	0.000	0.067	0.000	0.050	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.000	0.053	0.038	0.045	0.039	0.037	0.037	0.037	0.037	
TRIAL (% OF POP DEC)	0.037	0.038	0.038	0.039	0.033	0.037	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	-0.031	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.000	0.000	0.000	0.067	0.000	0.075	0.100	0.250	0.000	0.000	0.000	
NET (% OF POP ASC)	0.000	0.000	0.000	0.053	0.038	0.061	0.066	0.075	0.075	0.075	0.075	
NET (% OF POP DEC)	0.075	0.076	0.076	0.079	0.082	0.093	0.143	0.250	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.861	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.000	0.000	0.000	0.000	0.000	0.025	0.100	0.250	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.000	0.000	0.000	0.000	0.015	0.026	0.037	0.037	0.037	0.037	
REPEAT (% OF POP DEC)	0.037	0.038	0.038	0.039	0.049	0.056	0.143	0.250	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	1.225	0.000	0.000	0.000	0.000	0.000		

FOLGERS INSTANT COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.
X -----> O	5.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.
X -----> X	1.	0.	0.	0.	0.	0.	1.	0.	0.	1.	3.
O -----> O	44.	1.	7.	2.	0.	4.	1.	0.	0.	5.	64.
O <----> O	4.	0.	1.	0.	0.	0.	0.	0.	0.	0.	5.
TOTAL	57.	1.	8.	2.	0.	4.	2.	0.	0.	6.	80.
TRIAL (COL/MCD REG)	0.059	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.059	0.058	0.050	0.048	0.048	0.045	0.045	0.045	0.045	0.042	
TRIAL (COL/MCD DEC)	0.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.135	-1.097	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	
NET (COL/MCD DEC)	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.167	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	1.000	
REPEAT (COL/MCD ASC)	0.167	0.167	0.167	0.167	0.167	0.167	0.286	0.286	0.286	0.375	
REPEAT (COL/MCD DEC)	0.375	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.035	-0.034	-0.030	-0.029	-0.029	-0.028	-0.027	-0.027	-0.027	-0.025	
GAIN (% OF POP DEC)	-0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.053	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.053	0.052	0.045	0.044	0.044	0.042	0.041	0.041	0.041	0.037	
TRIAL (% OF POP DEC)	0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.121	-1.087	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.070	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.167	
NET (% OF POP ASC)	0.070	0.069	0.061	0.059	0.059	0.056	0.068	0.068	0.068	0.075	
NET (% OF POP DEC)	0.075	0.087	0.091	0.143	0.167	0.167	0.250	0.167	0.167	0.167	
T STATISTICS	0.258	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.018	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.167	
REPEAT (% OF POP ASC)	0.018	0.017	0.015	0.015	0.015	0.014	0.027	0.027	0.027	0.037	
REPEAT (% OF POP DEC)	0.037	0.087	0.091	0.143	0.167	0.167	0.250	0.167	0.167	0.167	
T STATISTICS	1.479	1.549	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

FOLGERS INSTANT COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS- WITHOUT COUPONS

SHARE OF TRANSACTIONS = 0.116
SHARE OF EXPOSURES = 0.218

SWITCHING TOWARD AND COUPON USAGE = 0
SWITCHING AWAY AND COUPON USAGE = 0
LOYAY TO TEST AND COUPON USAGE = 0
OTHER SWITCHING AND COUPON USAGE = 0
LOYAL TO OTHER AND COUPON USAGE = 0

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
0 -----> X	1.	0.	0.	1.	1.	0.	1.	0.	0.	0.	4.
X -----> 0	0.	3.	0.	1.	0.	0.	0.	0.	2.	1.	7.
X -----> X	3.	2.	0.	2.	2.	0.	1.	0.	0.	0.	10.
0 -----> 0	11.	11.	13.	10.	5.	10.	8.	1.	4.	3.	76.
0 <----> 0	2.	0.	1.	1.	0.	0.	0.	0.	0.	0.	4.
TOTAL	17.	16.	14.	15.	8.	10.	10.	1.	6.	4.	101.
TRIAL (COL/MCD REG)	0.071	0.000	0.000	0.083	0.167	0.000	0.111	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.071	0.040	0.026	0.039	0.053	0.045	0.053	0.052	0.049	0.048	
TRIAL (COL/MCD DEC)	0.048	0.043	0.051	0.067	0.061	0.037	0.059	0.000	0.000	0.000	
NET (COL/MCD REG)	1.000	0.000	0.000	0.500	1.000	0.000	1.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	1.000	0.250	0.250	0.333	0.429	0.429	0.500	0.500	0.400	0.364	
NET (COL/MCD DEC)	0.364	0.300	0.429	0.429	0.400	0.250	0.250	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	0.400	0.000	0.667	1.000	0.000	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	1.000	0.625	0.625	0.636	0.692	0.692	0.714	0.714	0.625	0.588	
REPEAT (COL/MCD DEC)	0.588	0.500	0.556	0.556	0.500	0.250	0.250	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.059	-0.188	0.000	0.000	0.125	0.000	0.100	0.000	-0.333	-0.250	
GAIN (% OF POP ASC)	0.059	-0.061	-0.043	-0.032	-0.014	-0.012	0.000	0.000	-0.021	-0.030	
GAIN (% OF POP DEC)	-0.030	-0.048	-0.015	-0.019	-0.026	-0.065	-0.095	-0.273	-0.300	-0.250	
TRIAL (% OF POP REG)	0.059	0.000	0.000	0.067	0.125	0.000	0.100	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.059	0.030	0.021	0.032	0.043	0.037	0.044	0.044	0.041	0.040	
TRIAL (% OF POP DEC)	0.040	0.036	0.044	0.056	0.051	0.032	0.048	0.000	0.000	0.000	
NET (% OF POP REG)	0.235	0.125	0.000	0.200	0.375	0.000	0.200	0.000	0.000	0.000	
NET (% OF POP ASC)	0.235	0.182	0.128	0.145	0.171	0.150	0.156	0.154	0.144	0.139	
NET (% OF POP DEC)	0.137	0.119	0.118	0.148	0.128	0.065	0.095	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.176	0.125	0.000	0.133	0.250	0.000	0.100	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.176	0.152	0.106	0.113	0.129	0.112	0.111	0.110	0.103	0.099	
REPEAT (% OF POP DEC)	0.099	0.083	0.074	0.093	0.077	0.032	0.048	0.000	0.000	0.000	

FOLGERS INSTANT COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	4.
X -----> O	3.	1.	1.	2.	0.	0.	0.	0.	0.	0.	7.
X -----> X	8.	1.	1.	0.	0.	0.	0.	0.	0.	0.	10.
O -----> O	45.	17.	8.	4.	1.	1.	0.	0.	0.	0.	76.
O <----> O	4.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.
TOTAL	62.	21.	10.	6.	1.	1.	0.	0.	0.	0.	101.
TRIAL (COL/MCD REG)	0.039	0.105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.039	0.057	0.051	0.049	0.048	0.048	0.048	0.048	0.048	0.048	
TRIAL (COL/MCD DEC)	0.048	0.061	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.450	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.400	0.667	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.400	0.500	0.444	0.364	0.364	0.364	0.364	0.364	0.364	0.364	
NET (COL/MCD DEC)	0.364	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.727	0.500	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.727	0.692	0.667	0.588	0.588	0.588	0.588	0.588	0.588	0.588	
REPEAT (COL/MCD DEC)	0.588	0.333	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.016	0.048	-0.100	-0.333	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.016	0.000	-0.011	-0.030	-0.030	-0.030	-0.030	-0.030	-0.030	-0.030	
GAIN (% OF POP DEC)	-0.030	-0.051	-0.167	-0.250	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.032	0.095	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.032	0.048	0.043	0.040	0.040	0.040	0.040	0.040	0.040	0.040	
TRIAL (% OF POP DEC)	0.040	0.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.477	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.161	0.143	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.161	0.157	0.151	0.141	0.140	0.139	0.139	0.139	0.139	0.139	
NET (% OF POP DEC)	0.139	0.103	0.056	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.832	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.129	0.048	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.129	0.108	0.108	0.101	0.100	0.099	0.099	0.099	0.099	0.099	
REPEAT (% OF POP DEC)	0.099	0.051	0.054	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.274	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

FOLGERS INSTANT COFFEE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS-WITHOUT COUPONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
0 -----> X	1.	0.	0.	2.	0.	1.	0.	0.	0.	0.	4.
X -----> 0	0.	3.	1.	0.	0.	1.	2.	0.	0.	0.	7.
X -----> X	3.	2.	2.	1.	1.	0.	1.	0.	0.	0.	10.
0 -----> 0	12.	18.	13.	8.	9.	7.	4.	1.	3.	1.	76.
0 <----> 0	2.	0.	1.	1.	0.	0.	0.	0.	0.	0.	4.
TOTAL	18.	23.	17.	12.	10.	9.	7.	1.	3.	1.	101.
TRIAL (COL/MCD REG)	0.067	0.000	0.000	0.182	0.000	0.125	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.067	0.030	0.021	0.052	0.045	0.053	0.051	0.050	0.048	0.048	
TRIAL (COL/MCD DEC)	0.048	0.043	0.059	0.081	0.038	0.059	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	1.000	0.000	0.000	1.000	0.000	0.500	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	1.000	0.250	0.200	0.429	0.429	0.444	0.364	0.364	0.364	0.364	
NET (COL/MCD DEC)	0.364	0.300	0.429	0.500	0.250	0.250	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	0.400	0.667	1.000	1.000	0.000	0.333	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	1.000	0.625	0.536	0.667	0.672	0.643	0.588	0.588	0.588	0.583	
REPEAT (COL/MCD DEC)	0.588	0.500	0.556	0.500	0.400	0.250	0.333	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.056	-0.130	-0.059	0.167	0.000	0.000	-0.286	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.056	-0.049	-0.052	-0.014	-0.012	-0.011	-0.031	-0.031	-0.030	-0.030	
GAIN (% OF POP DEC)	-0.030	-0.048	-0.017	0.000	-0.065	-0.095	-0.167	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.056	0.000	0.000	0.167	0.000	0.111	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.056	0.024	0.017	0.043	0.037	0.045	0.042	0.041	0.040	0.040	
TRIAL (% OF POP DEC)	0.040	0.036	0.050	0.070	0.032	0.048	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.222	0.087	0.118	0.250	0.100	0.111	0.143	0.000	0.000	0.000	
NET (% OF POP ASC)	0.222	0.146	0.138	0.157	0.150	0.146	0.146	0.144	0.140	0.139	
NET (% OF POP DEC)	0.139	0.120	0.133	0.140	0.097	0.095	0.083	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.167	0.087	0.119	0.083	0.100	0.000	0.143	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.167	0.122	0.121	0.114	0.112	0.101	0.104	0.103	0.100	0.099	
REPEAT (% OF POP DEC)	0.099	0.084	0.083	0.070	0.065	0.048	0.083	0.000	0.000	0.000	

FOLGERS INSTANT COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS- WITHOUT COUPONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
0 -----> X	0.	1.	1.	1.	0.	1.	0.	0.	0.	0.	0.	4.
X -----> 0	0.	1.	1.	1.	4.	0.	0.	0.	0.	0.	0.	7.
X -----> X	1.	1.	1.	0.	3.	4.	0.	0.	0.	0.	0.	10.
0 -----> 0	12.	3.	12.	12.	13.	19.	3.	2.	0.	0.	0.	76.
0 <----> 0	0.	0.	1.	1.	0.	2.	0.	0.	0.	0.	0.	4.
TOTAL	13.	6.	16.	15.	20.	26.	3.	2.	0.	0.	0.	101.
TRIAL (COL/MCD REG)	0.000	0.250	0.071	0.071	0.000	0.045	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.063	0.067	0.068	0.053	0.051	0.049	0.048	0.048	0.048	0.048	
TRIAL (COL/MCD DEC)	0.048	0.056	0.044	0.037	0.025	0.037	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.000	0.500	0.500	0.500	0.000	1.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.500	0.500	0.500	0.300	0.364	0.364	0.364	0.364	0.364	0.364	
NET (COL/MCD DEC)	0.364	0.364	0.333	0.286	0.200	1.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	1.000	0.500	0.500	0.000	0.429	1.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	1.000	0.667	0.600	0.500	0.462	0.588	0.589	0.588	0.588	0.588	0.588	
REPEAT (COL/MCD DEC)	0.588	0.563	0.571	0.583	0.636	1.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.000	0.000	0.000	0.000	-0.200	0.038	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	0.000	0.000	-0.057	-0.031	-0.030	-0.030	-0.030	-0.030	-0.030	
GAIN (% OF POP DEC)	-0.030	-0.034	-0.037	-0.045	-0.059	0.032	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.167	0.063	0.067	0.000	0.038	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.053	0.057	0.060	0.043	0.042	0.040	0.040	0.040	0.040	0.040	
TRIAL (% OF POP DEC)	0.040	0.045	0.037	0.030	0.020	0.032	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.077	0.333	0.125	0.067	0.150	0.192	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.077	0.158	0.143	0.120	0.129	0.146	0.141	0.139	0.139	0.139	0.139	
NET (% OF POP DEC)	0.139	0.148	0.134	0.136	0.157	0.161	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.077	0.167	0.063	0.000	0.150	0.154	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.077	0.105	0.086	0.060	0.096	0.104	0.101	0.099	0.099	0.099	0.099	
REPEAT (% OF POP DEC)	0.099	0.102	0.098	0.106	0.137	0.129	0.000	0.000	0.000	0.000	0.000	

FOLGERS INSTANT COFFEE 7-DAY WINDOW 50% FREQ ENTIRE DAY
ALL TRANSACTIONS- WITHOUT COUPONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	0.	0.	1.	2.	1.	0.	0.	0.	0.	0.	4.
X -----> O	0.	0.	0.	0.	2.	5.	0.	0.	0.	0.	0.	7.
X -----> X	0.	0.	0.	1.	2.	7.	0.	0.	0.	0.	0.	10.
O -----> O	2.	1.	4.	17.	5.	29.	11.	2.	4.	1.	0.	76.
O <----> O	0.	0.	0.	0.	0.	4.	0.	0.	0.	0.	0.	4.
TOTAL	2.	1.	4.	19.	11.	46.	11.	2.	4.	1.	0.	101.
TRIAL (COL/MCD REG)	0.000	0.000	0.000	0.056	0.286	0.029	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.000	0.000	0.040	0.094	0.061	0.052	0.051	0.049	0.048	0.049	
TRIAL (COL/MCD DEC)	0.048	0.049	0.049	0.052	0.051	0.019	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.213	-1.557	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.000	0.000	0.000	1.000	0.500	0.167	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.000	0.000	1.000	0.500	0.364	0.364	0.364	0.354	0.364	0.364	
NET (COL/MCD DEC)	0.364	0.364	0.364	0.364	0.300	0.167	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	0.000	0.000	1.000	0.500	0.583	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.000	0.000	1.000	0.600	0.588	0.588	0.588	0.588	0.588	0.588	
REPEAT (COL/MCD DEC)	0.588	0.588	0.588	0.588	0.563	0.583	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	0.000	0.053	0.000	-0.087	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	0.000	0.038	0.027	-0.036	-0.032	-0.031	-0.030	-0.030	-0.030	
GAIN (% OF POP DEC)	-0.030	-0.030	-0.031	-0.032	-0.053	-0.063	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.000	0.000	0.053	0.182	0.022	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.000	0.038	0.081	0.048	0.043	0.042	0.040	0.040	0.040	
TRIAL (% OF POP DEC)	0.040	0.040	0.041	0.043	0.040	0.016	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.035	-1.616	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.000	0.000	0.000	0.105	0.364	0.174	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.000	0.000	0.000	0.077	0.162	0.169	0.149	0.146	0.140	0.139	0.139	
NET (% OF POP DEC)	0.139	0.141	0.143	0.149	0.160	0.125	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	1.055	-0.519	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.000	0.000	0.000	0.053	0.182	0.152	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.000	0.000	0.038	0.081	0.120	0.106	0.104	0.100	0.099	0.099	
REPEAT (% OF POP DEC)	0.099	0.101	0.102	0.106	0.120	0.109	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	1.199	0.458	0.000	0.000	0.000	0.000	0.000		

FOLGERS INSTANT COFFEE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS-WITHOUT COUPONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	2.	1.	1.	0.	0.	0.	0.	0.	0.	0.	4.
X -----> O	3.	0.	1.	3.	0.	0.	0.	0.	0.	0.	7.
X -----> X	8.	0.	0.	1.	0.	1.	0.	0.	0.	0.	10.
O -----> O	45.	3.	7.	8.	0.	8.	3.	1.	0.	1.	76.
O <----> O	4.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.
TOTAL	62.	4.	9.	12.	0.	9.	3.	1.	0.	1.	101.
TRIAL (COL/MCD REG)	0.039	0.250	0.125	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.039	0.055	0.063	0.056	0.056	0.051	0.049	0.048	0.048	0.048	
TRIAL (COL/MCD DEC)	0.048	0.061	0.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.450	-0.411	-1.183	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.400	1.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.400	0.500	0.500	0.364	0.364	0.364	0.364	0.364	0.364	0.364	
NET (COL/MCD DEC)	0.364	0.333	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.727	0.000	0.000	0.250	0.000	1.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.727	0.727	0.667	0.563	0.563	0.588	0.588	0.588	0.588	0.588	
REPEAT (COL/MCD DEC)	0.588	0.333	0.333	0.400	1.000	1.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.016	0.250	0.000	-0.250	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.016	0.000	0.000	-0.034	-0.034	-0.031	-0.030	-0.030	-0.030	-0.030	
GAIN (% OF POP DEC)	-0.030	-0.051	-0.086	-0.115	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.032	0.250	0.111	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.032	0.045	0.053	0.046	0.046	0.042	0.040	0.040	0.040	0.040	
TRIAL (% OF POP DEC)	0.040	0.051	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.477	-0.414	-1.207	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.161	0.250	0.111	0.083	0.000	0.111	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.161	0.167	0.160	0.149	0.149	0.146	0.141	0.140	0.140	0.139	
NET (% OF POP DEC)	0.139	0.103	0.086	0.077	0.071	0.071	0.000	0.000	0.000	0.000	
T STATISTICS	-0.832	-1.120	-1.056	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.129	0.000	0.000	0.083	0.000	0.111	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.129	0.121	0.107	0.103	0.103	0.104	0.101	0.100	0.100	0.099	
REPEAT (% OF POP DEC)	0.099	0.051	0.057	0.077	0.071	0.071	0.000	0.000	0.000	0.000	
T STATISTICS	-1.274	-1.026	-0.438	0.000	0.000	0.000	0.000	0.000	0.000		

AVERAGE TCOTHPASTE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS

SWITCHING TOWARD AND CCUPON USAGE = 14
SWITCHING AWAY AND COUPON USAGE = 10
LOYAY TO TEST AND COUPCN USAGE = 4
OTHER SWITCHING AND COUPON USAGE = 53
LOYAL TO OTHER AND COUPCN USAGE = 14

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	5.	1.	4.	3.	1.	2.	1.	4.	2.	5.	28.
X -----> O	3.	2.	4.	4.	3.	2.	1.	3.	2.	6.	30.
X -----> X	0.	5.	3.	4.	8.	4.	2.	3.	0.	4.	33.
O -----> O	14.	27.	22.	27.	31.	22.	9.	22.	5.	37.	216.
O <----> O	3.	0.	7.	7.	12.	0.	7.	8.	6.	3.	53.
TOTAL	25.	35.	40.	45.	55.	30.	20.	40.	15.	55.	360.
TRIAL (COL/MCD REG)	0.227	0.036	0.121	0.081	0.023	0.083	0.059	0.118	0.154	0.111	
TRIAL (COL/MCD ASC)	0.227	0.120	0.120	0.108	0.085	0.085	0.083	0.088	0.091	0.094	
TRIAL (CCL/MCD DEC)	0.094	0.084	0.089	0.084	0.085	0.105	0.110	0.120	0.121	0.111	
NET (COL/MCD REG)	0.625	0.333	0.500	0.429	0.250	0.500	0.500	0.571	0.500	0.455	
NET (COL/MCD ASC)	0.625	0.545	0.526	0.500	0.467	0.471	0.472	0.488	0.489	0.483	
NET (COL/MCD DEC)	0.483	0.460	0.468	0.462	0.469	0.500	0.500	0.500	0.467	0.455	
REPEAT (COL/MCD REG)	0.000	0.714	0.429	0.500	0.727	0.667	0.667	0.500	0.000	0.400	
REPEAT (COL/MCD ASC)	0.000	0.500	0.471	0.480	0.556	0.571	0.578	0.569	0.547	0.524	
REPEAT (COL/MCD DEC)	0.524	0.550	0.528	0.543	0.553	0.481	0.429	0.389	0.333	0.400	
GAIN (% OF POP REG)	0.080	-0.029	0.000	-0.022	-0.036	0.000	0.000	0.025	0.000	-0.018	
GAIN (% OF POP ASC)	0.080	0.017	0.010	0.000	-0.010	-0.009	-0.008	-0.003	-0.003	-0.006	
GAIN (% OF POP DEC)	-0.006	-0.012	-0.010	-0.012	-0.009	0.000	0.000	0.000	-0.014	-0.018	
TRIAL (% OF POP REG)	0.200	0.029	0.100	0.067	0.018	0.067	0.050	0.100	0.133	0.091	
TRIAL (% OF POP ASC)	0.200	0.100	0.100	0.090	0.070	0.070	0.068	0.072	0.075	0.078	
TRIAL (% OF POP DEC)	0.078	0.069	0.073	0.069	0.070	0.087	0.092	0.100	0.100	0.091	
NET (% OF POP REG)	0.200	0.171	0.175	0.156	0.164	0.200	0.150	0.175	0.133	0.164	
NET (% OF POP ASC)	0.200	0.183	0.180	0.172	0.170	0.174	0.172	0.172	0.170	0.169	
NET (% OF POP DEC)	0.169	0.167	0.167	0.165	0.167	0.169	0.162	0.164	0.157	0.164	
REPEAT (% OF POP REG)	0.000	0.143	0.075	0.089	0.145	0.133	0.100	0.075	0.000	0.073	
REPEAT (% OF POP ASC)	0.000	0.083	0.080	0.083	0.100	0.104	0.104	0.100	0.095	0.092	
REPEAT (% OF PCP DEC)	0.092	0.099	0.093	0.096	0.098	0.081	0.069	0.064	0.057	0.073	

AVERAGE TOOTHPASTE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	15.	6.	4.	2.	0.	0.	0.	0.	1.	0.	28.
X -----> O	13.	13.	3.	0.	1.	0.	0.	0.	0.	0.	30.
X -----> X	15.	10.	5.	3.	0.	0.	0.	0.	0.	0.	33.
O -----> O	117.	49.	30.	12.	2.	2.	2.	1.	0.	1.	216.
O <----> O	24.	21.	3.	3.	2.	0.	0.	0.	0.	0.	53.
TOTAL	184.	99.	45.	20.	5.	2.	2.	1.	1.	1.	360.
TRIAL (COL/MCD REG)	0.096	0.079	0.108	0.118	0.000	0.000	0.000	0.000	1.000	0.000	
TRIAL (COL/MCD ASC)	0.096	0.091	0.093	0.094	0.093	0.092	0.092	0.092	0.095	0.094	
TRIAL (COL/MCD DEC)	0.094	0.092	0.108	0.107	0.091	0.143	0.200	0.333	0.500	0.000	
T STATISTICS	-0.116	0.419	0.245	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.536	0.316	0.571	1.000	0.000	0.000	0.000	0.000	1.000	0.000	
NET (COL/MCD ASC)	0.536	0.447	0.463	0.482	0.474	0.474	0.474	0.474	0.483	0.483	
NET (COL/MCD DEC)	0.483	0.433	0.636	0.750	0.500	1.000	1.000	1.000	1.000	0.000	
REPEAT (COL/MCD REG)	0.536	0.435	0.625	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.536	0.490	0.508	0.532	0.524	0.524	0.524	0.524	0.524	0.524	
REPEAT (COL/MCD DEC)	0.524	0.514	0.667	0.750	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.169	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.011	-0.071	0.022	0.100	-0.200	0.000	0.000	0.000	1.000	0.000	
GAIN (% OF POP ASC)	0.011	-0.018	-0.012	-0.006	-0.008	-0.008	-0.008	-0.008	-0.006	-0.006	
GAIN (% OF POP DEC)	-0.006	-0.023	0.039	0.063	0.000	0.143	0.200	0.333	0.500	0.000	
TRIAL (% OF POP REG)	0.082	0.061	0.089	0.100	0.000	0.000	0.000	0.000	1.000	0.000	
TRIAL (% OF POP ASC)	0.082	0.074	0.076	0.078	0.076	0.076	0.076	0.075	0.078	0.078	
TRIAL (% OF POP DEC)	0.078	0.074	0.091	0.094	0.083	0.143	0.200	0.333	0.500	0.000	
T STATISTICS	-0.271	0.485	0.353	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.163	0.162	0.200	0.250	0.000	0.000	0.000	0.000	1.000	0.000	
NET (% OF POP ASC)	0.163	0.163	0.168	0.172	0.170	0.169	0.168	0.168	0.170	0.169	
NET (% OF POP DEC)	0.169	0.176	0.195	0.188	0.083	0.143	0.200	0.333	0.500	0.000	
T STATISTICS	0.331	0.669	0.285	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.082	0.101	0.111	0.150	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.082	0.088	0.091	0.095	0.093	0.093	0.092	0.092	0.092	0.092	
REPEAT (% OF POP DEC)	0.092	0.102	0.104	0.094	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.682	0.419	0.043	0.000	0.000	0.000	0.000	0.000	0.000		

AVERAGE TOOTHPASTE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	5.	3.	3.	4.	2.	0.	4.	2.	1.	4.	28.
X -----> O	4.	3.	5.	2.	3.	2.	3.	1.	2.	5.	30.
X -----> X	2.	4.	5.	7.	8.	1.	1.	1.	1.	3.	33.
O -----> O	19.	32.	32.	31.	26.	19.	14.	11.	5.	27.	216.
O <----> O	3.	2.	11.	8.	8.	7.	4.	6.	1.	3.	53.
TOTAL	33.	44.	56.	52.	47.	29.	26.	21.	10.	42.	360.
TRIAL (COL/MCD REG)	0.185	0.081	0.065	0.093	0.056	0.000	0.182	0.105	0.143	0.118	
TRIAL (CCL/MCD ASC)	0.185	0.125	0.100	0.098	0.090	0.079	0.089	0.090	0.091	0.094	
TRIAL (COL/MCD DEC)	0.094	0.085	0.086	0.091	0.090	0.102	0.134	0.117	0.122	0.118	
NET (COL/MCD REG)	0.556	0.500	0.375	0.667	0.400	0.000	0.571	0.667	0.333	0.444	
NET (CCL/MCD ASC)	0.556	0.533	0.478	0.517	0.500	0.472	0.488	0.500	0.490	0.483	
NET (COL/MCD DEC)	0.483	0.469	0.465	0.486	0.448	0.458	0.500	0.467	0.417	0.444	
REPEAT (COL/MCD REG)	0.333	0.571	0.500	0.778	0.727	0.333	0.250	0.500	0.333	0.375	
REPEAT (COL/MCD ASC)	0.333	0.462	0.478	0.563	0.605	0.587	0.560	0.558	0.545	0.524	
REPEAT (COL/MCD DEC)	0.524	0.544	0.540	0.550	0.484	0.350	0.353	0.385	0.364	0.375	
GAIN (% OF POP REG)	0.030	0.000	-0.036	0.038	-0.021	-0.069	0.038	0.048	-0.100	-0.024	
GAIN (% OF POP ASC)	0.030	0.013	-0.008	0.005	0.000	-0.008	-0.003	0.000	-0.003	-0.006	
GAIN (% CF POP DEC)	-0.006	-0.009	-0.011	-0.004	-0.017	-0.016	0.000	-0.014	-0.038	-0.024	
TRIAL (% OF POP REG)	0.152	0.068	0.054	0.077	0.043	0.000	0.154	0.095	0.100	0.095	
TRIAL (% OF POP ASC)	0.152	0.104	0.083	0.081	0.073	0.065	0.073	0.075	0.075	0.078	
TRIAL (% OF POP DEC)	0.078	0.070	0.071	0.075	0.074	0.086	0.111	0.096	0.096	0.095	
NET (% OF POP REG)	0.212	0.159	0.143	0.212	0.213	0.034	0.192	0.143	0.200	0.167	
NET (% CF POP ASC)	0.212	0.182	0.165	0.178	0.185	0.169	0.171	0.169	0.170	0.169	
NET (% OF POP DEC)	0.169	0.165	0.166	0.172	0.160	0.141	0.172	0.164	0.173	0.167	
REPEAT (% UF POP REG)	0.061	0.091	0.089	0.135	0.170	0.034	0.038	0.048	0.100	0.071	
REPEAT (% OF POP ASC)	0.061	0.078	0.083	0.097	0.112	0.103	0.098	0.094	0.094	0.092	
REPEAT (% OF POP DEC)	0.092	0.095	0.095	0.097	0.086	0.055	0.061	0.068	0.077	0.071	

AVERAGE TOOTHPASTE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
0 -----> X	8.	3.	3.	4.	2.	7.	1.	0.	0.	0.	0.	28.
X -----> 0	10.	5.	2.	3.	4.	5.	1.	0.	0.	0.	0.	30.
X -----> X	6.	5.	6.	4.	7.	3.	1.	1.	0.	0.	0.	33.
0 -----> 0	64.	17.	28.	30.	38.	27.	8.	2.	0.	0.	2.	216.
0 <----> 0	14.	10.	4.	11.	6.	8.	0.	0.	0.	0.	0.	53.
TOTAL	102.	40.	43.	52.	57.	50.	11.	3.	0.	0.	2.	360.
TRIAL (COL/MCD REG)	0.093	0.100	0.086	0.089	0.043	0.167	0.111	0.000	0.000	0.000	0.000	
TRIAL (CCL/MCD ASC)	0.093	0.095	0.093	0.092	0.083	0.095	0.096	0.095	0.095	0.095	0.094	
TRIAL (COL/MCD DEC)	0.094	0.095	0.094	0.096	0.099	0.145	0.077	0.000	0.0C0	0.000	0.000	
NET (COL/MCD REG)	0.444	0.375	0.600	0.571	0.333	0.583	0.500	0.000	0.000	0.000	0.000	
NET (CCL/MCD ASC)	0.444	0.423	0.452	0.474	0.455	0.482	0.483	0.483	0.483	0.483	0.483	
NET (CGL/MCD DEC)	0.483	0.500	0.531	0.519	0.500	0.571	0.500	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.375	0.500	0.750	0.571	0.636	0.375	C.500	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	C.375	0.423	0.500	0.512	0.538	0.517	0.516	0.524	0.524	0.524	0.524	
REPEAT (CGL/MCD DEC)	0.524	0.574	0.595	0.552	0.545	0.455	0.667	1.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	-0.020	-0.050	0.023	0.019	-0.035	0.040	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.020	-0.028	-0.016	-0.008	-0.014	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006	
GAIN (% OF POP DEC)	-0.006	0.000	0.009	0.006	0.000	0.030	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.078	0.075	0.070	0.077	0.035	0.140	0.091	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	C.078	0.077	0.076	0.076	0.068	0.078	0.079	0.078	0.078	0.078	0.078	
TRIAL (% OF POP DEC)	0.078	0.078	0.078	0.080	0.081	0.121	0.063	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.137	0.200	0.209	0.154	0.158	0.200	0.182	0.333	0.000	0.000	0.000	
NET (% CF POP ASC)	0.137	0.155	0.168	0.165	0.163	0.169	0.169	0.170	0.170	0.170	0.169	
NET (% OF POP DEC)	0.169	0.182	0.179	0.171	0.179	0.197	0.188	0.200	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.059	0.125	0.140	0.077	0.123	0.060	0.091	0.333	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.059	0.077	0.092	0.089	0.095	0.090	0.090	0.092	0.092	0.092	0.092	
REPEAT (% OF POP DEC)	0.092	0.105	0.101	0.091	0.098	0.076	0.125	0.200	0.000	0.000	C.000	

AVERAGE TOOTHPASTE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	1.	1.	0.	5.	7.	8.	4.	1.	0.	1.	0.	28.
X -----> O	1.	2.	1.	8.	6.	9.	3.	0.	0.	0.	0.	30.
X -----> X	0.	1.	1.	8.	9.	9.	3.	2.	0.	0.	0.	33.
O -----> O	12.	1.	19.	44.	40.	58.	26.	12.	0.	1.	3.	216.
O <----> O	2.	0.	6.	11.	11.	12.	9.	2.	0.	0.	0.	53.
TOTAL	16.	5.	27.	76.	73.	96.	45.	17.	C.	2.	3.	360.
TRIAL (COL/MCD REG)	0.067	0.500	0.000	0.083	0.121	0.103	0.103	0.067	0.000	0.500	0.000	
TRIAL (COL/MCD ASC)	0.067	0.118	0.048	0.069	0.087	0.092	0.094	0.092	0.092	0.095	0.094	
TRIAL (COL/MCD DEC)	0.094	0.096	0.093	0.102	0.108	0.102	0.102	0.100	0.200	0.200	0.000	
T STATISTICS	0.000	0.000	1.116	1.092	0.429	0.213	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.500	0.333	0.000	0.385	0.538	0.471	0.571	1.000	0.000	1.000	0.000	
NET (COL/MCD ASC)	0.500	0.400	0.333	0.368	0.438	0.449	0.464	0.474	0.474	0.483	0.483	
NET (COL/MCD DEC)	0.483	0.482	0.491	0.500	0.538	0.538	0.667	1.000	1.000	1.000	0.000	
REPEAT (COL/MCD REG)	0.000	0.333	0.500	0.500	0.600	0.500	0.500	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.250	0.333	0.455	0.514	0.509	0.508	0.524	0.524	0.524	0.524	
REPEAT (COL/MCD DEC)	C.524	0.532	0.542	0.544	0.561	0.538	0.625	1.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.0C0	0.170	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	-0.200	-0.037	-0.039	0.014	-0.010	0.022	0.059	0.000	0.500	0.000	
GAIN (% OF POP ASC)	0.000	-0.048	-0.042	-0.040	-0.020	-0.017	-0.012	-0.008	-0.008	-0.006	-0.006	
GAIN (% CF POP DEC)	-0.096	-0.006	-0.003	0.000	0.013	0.012	0.045	0.091	0.200	0.200	0.000	
TRIAL (% OF POP REG)	0.063	0.200	0.000	0.066	0.096	0.003	0.089	0.059	0.000	0.500	0.000	
TRIAL (% OF POP ASC)	0.063	0.095	0.042	0.056	0.071	0.075	0.077	0.076	0.076	0.078	0.078	
TRIAL (% OF POP DEC)	0.078	0.078	0.077	0.083	0.089	0.086	0.090	0.091	0.200	0.200	0.000	
T STATISTICS	0.000	-0.308	1.003	1.094	0.521	0.394	0.227	0.000	0.000	0.000		
NET (% OF POP REG)	0.063	0.400	0.037	0.171	0.219	0.177	0.156	0.176	0.000	0.500	0.000	
NET (% CF POP ASC)	0.063	0.143	0.083	0.137	0.168	0.171	0.169	0.169	0.169	0.171	0.169	
NET (% OF POP DEC)	0.169	0.174	0.171	0.183	0.186	0.172	0.164	0.182	0.200	0.200	0.000	
T STATISTICS	0.000	0.335	1.708	1.184	0.107	-0.126	0.153	0.000	0.000	0.000		
REPEAT (% CF POP REG)	0.000	0.200	0.037	0.105	0.123	0.094	0.067	0.118	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.048	0.042	0.081	0.096	0.096	0.092	0.093	0.093	0.092	0.092	
REPEAT (% OF POP DEC)	0.092	0.096	0.094	0.099	0.097	0.086	C.075	0.091	0.000	0.000	0.000	
T STATISTICS	0.000	0.721	1.289	0.525	-0.344	-0.529	-0.012	0.000	0.000	0.000		

AVERAGE TOOTHPASTE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
O -----> X	16.	3.	3.	1.	2.	2.	1.	0.	0.	0.	28.
X -----> O	15.	5.	3.	4.	0.	2.	0.	0.	0.	1.	30.
X -----> X	15.	4.	6.	2.	1.	3.	0.	0.	0.	2.	33.
O -----> O	121.	19.	30.	13.	8.	14.	4.	1.	1.	5.	216.
O <----> O	24.	10.	7.	5.	2.	5.	0.	0.	0.	0.	53.
TOTAL	191.	41.	49.	25.	13.	26.	5.	1.	1.	8.	360.
TRIAL (COL/MCD REG)	0.099	0.094	0.075	0.053	0.167	0.095	0.200	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.099	0.098	0.094	0.091	0.095	0.095	0.097	0.096	0.096	0.094	
TRIAL (COL/MCC DEC)	0.094	0.088	0.087	0.094	0.111	0.091	0.083	0.000	0.000	0.000	
T STATISTICS	-0.327	-0.335	-0.016	0.420	-0.070	0.000	0.000	0.000	0.000		
NET (CGL/MCD REG)	0.516	0.375	0.500	0.200	1.000	0.500	1.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.516	0.487	0.489	0.460	0.481	0.482	0.491	0.491	0.491	0.483	
NET (COL/MCD DEC)	0.483	0.444	0.474	0.462	0.625	0.500	0.500	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.500	0.444	0.667	0.333	1.000	0.600	0.000	0.000	0.000	0.667	
REPEAT (COL/MCD ASC)	0.500	0.487	0.521	0.500	0.509	0.517	0.517	0.517	0.517	0.524	
REPEAT (COL/MCD DEC)	0.524	0.545	0.583	0.533	0.667	0.625	0.667	0.667	0.667	0.667	
T STATISTICS	0.361	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.005	-0.049	0.000	-0.120	0.154	0.000	0.200	0.000	0.000	-0.125	
GAIN (% OF POP ASC)	0.005	-0.004	-0.004	-0.013	-0.006	-0.006	-0.003	-0.003	-0.003	-0.006	
GAIN (% OF POP DEC)	-0.006	-0.018	-0.008	-0.013	0.037	0.000	0.000	-0.100	-0.111	-0.125	
TRIAL (% OF POP REG)	0.084	0.073	0.061	0.040	0.154	0.077	0.200	0.000	0.000	0.000	
TRIAL (% UF POP ASC)	0.084	0.082	0.078	0.075	0.078	0.078	0.080	0.080	0.080	0.078	
TRIAL (% OF POP DEC)	0.078	0.071	0.070	0.076	0.093	0.073	0.067	0.000	0.000	0.000	
T STATISTICS	-0.451	-0.393	-0.069	0.441	-0.117	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.162	0.171	0.184	0.120	0.231	0.192	0.200	0.000	0.000	0.250	
NET (% CF POP ASC)	0.162	0.164	0.167	0.163	0.166	0.168	0.169	0.168	0.168	0.169	
NET (% OF POP DEC)	0.169	0.178	0.180	0.177	0.204	0.195	0.200	0.200	0.222	0.250	
T STATISTICS	0.384	0.385	0.208	0.728	0.466	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.079	0.098	0.122	0.080	0.077	0.115	0.000	0.000	0.000	0.250	
REPEAT (% OF POP ASC)	0.079	0.082	0.089	0.088	0.088	0.090	0.089	0.088	0.088	0.092	
REPEAT (% OF POP DEC)	0.092	0.107	0.109	0.101	0.111	0.122	0.133	0.200	0.222	0.250	
T STATISTICS	0.918	0.865	0.335	0.537	0.714	0.000	0.000	0.000	0.000		

AVERAGE TCOTHPASTE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

SWITCHING TOWARD AND COUPON USAGE = 14
SWITCHING AWAY AND COUPON USAGE = 10
LOYAY TO TEST AND COUPON USAGE = 4
OTHER SWITCHING AND COUPON USAGE = 53
LCYAL TO OTHER ANC COUPCN USAGE = 14

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	5.	0.	2.	1.	0.	0.	1.	3.	0.	2.	14.
X -----> O	3.	0.	1.	1.	0.	0.	1.	2.	0.	2.	10.
X -----> X	0.	0.	1.	0.	2.	0.	1.	0.	0.	0.	4.
O -----> O	14.	0.	11.	3.	8.	0.	0.	11.	0.	6.	53.
U <----> O	3.	0.	0.	0.	0.	0.	7.	4.	0.	0.	14.
TOTAL	25.	0.	15.	5.	10.	0.	10.	20.	C.	10.	95.
TRIAL (COL/MCD REG)	0.227	0.000	0.154	0.250	0.000	0.000	0.125	0.167	0.000	0.250	
TRIAL (COL/MCD ASC)	0.227	0.227	0.200	0.205	0.170	0.170	0.164	0.164	0.164	0.173	
TRIAL (COL/MCD DEC)	0.173	0.153	0.153	0.152	0.143	0.176	0.176	0.192	0.250	0.250	
NET (COL/MCD REG)	0.625	0.000	0.667	0.500	0.000	0.000	0.500	0.600	0.000	0.500	
NET (CCL/MCD ASC)	0.625	0.625	0.636	0.615	0.615	0.615	0.600	0.600	0.600	0.583	
NET (COL/MCD DEC)	C.583	0.563	0.563	0.538	0.545	0.545	0.545	0.556	0.500	0.500	
REPEAT (COL/MCD REG)	0.000	0.000	0.500	0.000	1.000	0.000	0.500	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.000	0.200	0.167	0.375	0.375	0.400	0.333	0.333	0.286	
REPEAT (COL/MCD DEC)	0.286	0.364	0.364	0.333	0.375	0.167	0.167	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.080	0.000	0.067	0.000	0.000	0.000	0.000	0.050	0.000	0.000	
GAIN (% OF POP ASC)	C.080	0.080	0.075	0.067	0.055	0.055	0.046	0.047	0.047	0.042	
GAIN (% OF POP DEC)	0.042	0.029	0.029	0.018	0.020	0.025	0.025	0.033	0.000	0.000	
TRIAL (% OF POP REG)	0.200	0.000	0.133	0.200	0.000	0.000	0.100	0.150	0.000	0.200	
TRIAL (% OF POP ASC)	0.200	0.200	0.175	0.178	0.145	0.145	0.138	0.141	0.141	0.147	
TRIAL (% OF POP DEC)	0.147	0.129	0.129	0.127	0.120	0.150	0.150	0.167	0.200	0.200	
NET (% OF POP REG)	0.200	0.000	0.200	0.200	0.200	0.000	0.200	0.150	0.000	0.200	
NET (% CF POP ASC)	0.200	0.2C0	0.200	0.200	0.200	0.200	0.200	0.188	0.188	0.189	
NET (% OF POP DEC)	0.189	0.186	0.186	0.182	0.180	0.175	0.175	0.167	0.200	0.200	
REPEAT (% OF POP REG)	0.000	0.000	0.067	0.000	0.200	0.000	0.100	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	C.000	0.000	0.025	0.022	0.055	0.055	0.062	0.047	0.047	0.042	
REPEAT (% OF POP DEC)	0.042	0.057	0.057	0.055	0.060	0.025	0.025	0.000	0.000	0.000	

AVERAGE TOOTHPASTE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	9.	3.	1.	1.	0.	0.	0.	0.	0.	0.	14.
X -----> O	6.	3.	1.	0.	0.	0.	0.	0.	0.	0.	10.
X -----> X	3.	0.	0.	1.	0.	0.	0.	0.	0.	0.	4.
O -----> O	28.	12.	11.	2.	0.	0.	0.	0.	0.	0.	53.
O <----> O	6.	6.	1.	1.	0.	0.	0.	0.	0.	0.	14.
TOTAL	52.	24.	14.	5.	0.	0.	0.	0.	0.	0.	95.
TRIAL (COL/MCD REG)	0.209	0.143	0.077	0.250	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.209	0.188	0.169	0.173	0.173	0.173	0.173	0.173	0.173	0.173	
TRIAL (COL/MCD DEC)	0.173	0.132	0.118	0.250	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.923	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.600	0.500	0.500	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.600	0.571	0.565	0.583	0.583	0.583	0.583	0.583	0.583	0.583	
NET (COL/MCD DEC)	0.583	0.556	0.667	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.333	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.333	0.250	0.231	0.286	0.286	0.286	0.286	0.286	0.286	0.286	
REPEAT (COL/MCD DEC)	0.286	0.200	0.500	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.058	0.000	0.000	0.200	0.000	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.058	0.039	0.033	0.042	0.042	0.042	0.042	0.042	0.042	0.042	
GAIN (% OF POP DEC)	0.042	0.023	0.053	0.200	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.173	0.125	0.071	0.200	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.173	0.158	0.144	0.147	0.147	0.147	0.147	0.147	0.147	0.147	
TRIAL (% OF POP DEC)	0.147	0.116	0.105	0.200	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.777	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.231	0.125	0.071	0.400	0.000	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.231	0.197	0.178	0.189	0.189	0.189	0.189	0.189	0.189	0.189	
NET (% OF POP DEC)	0.189	0.140	0.158	0.400	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-1.129	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.058	0.000	0.000	0.200	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.058	0.039	0.033	0.042	0.042	0.042	0.042	0.042	0.042	0.042	
REPEAT (% OF POP DEC)	0.042	0.023	0.053	0.200	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.832	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

AVERAGE TOOTHPASTE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
0 -----> X	5.	0.	2.	1.	1.	0.	2.	1.	1.	1.	14.
X -----> 0	3.	1.	0.	1.	0.	1.	1.	1.	0.	2.	10.
X -----> X	0.	0.	1.	1.	2.	0.	0.	0.	0.	0.	4.
0 -----> 0	15.	3.	11.	4.	4.	4.	6.	2.	0.	4.	53.
0 <----> 0	3.	0.	0.	0.	1.	6.	3.	1.	0.	0.	14.
TOTAL	26.	4.	14.	7.	8.	11.	12.	5.	1.	7.	95.
TRIAL (COL/MCD REG)	0.217	0.000	0.154	0.209	0.167	0.000	0.182	0.250	1.000	0.200	
TRIAL (COL/MCD ASC)	0.217	0.192	0.179	0.182	0.180	0.150	0.155	0.160	0.171	0.173	
TRIAL (COL/MCD DEC)	0.173	0.155	0.164	0.167	0.162	0.161	0.238	0.300	0.333	0.200	
NET (COL/MCD REG)	0.625	0.000	1.000	0.500	1.000	0.000	0.667	0.500	1.000	0.333	
NET (COL/MCD ASC)	0.625	0.556	0.636	0.615	0.643	0.600	0.611	0.600	0.619	0.583	
NET (COL/MCD DEC)	0.583	0.563	0.600	0.538	0.545	0.500	0.556	0.500	0.500	0.333	
REPEAT (COL/MCD REG)	0.000	0.000	1.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.000	0.200	0.286	0.444	0.400	0.364	0.333	0.333	0.286	
REPEAT (COL/MCD DEC)	0.286	0.364	0.400	0.333	0.286	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.077	-0.250	0.143	0.000	0.125	-0.091	0.083	0.000	1.000	-0.143	
GAIN (% OF POP ASC)	0.077	0.033	0.068	0.059	0.068	0.043	0.049	0.046	0.057	0.042	
GAIN (% OF POP DEC)	0.042	0.029	0.046	0.020	0.023	0.000	0.040	0.000	0.000	-0.143	
TRIAL (% OF POP REG)	0.192	0.000	0.143	0.143	0.125	0.000	0.167	0.200	1.000	0.143	
TRIAL (% OF POP ASC)	0.192	0.167	0.159	0.157	0.153	0.129	0.134	0.138	0.148	0.147	
TRIAL (% OF POP DEC)	0.147	0.130	0.138	0.137	0.136	0.139	0.200	0.231	0.250	0.143	
NET (% OF POP REG)	0.192	0.000	0.214	0.286	0.375	0.000	0.167	0.200	1.000	0.143	
NET (% OF POP ASC)	0.192	0.167	0.182	0.196	0.220	0.186	0.183	0.184	0.193	0.189	
NET (% OF POP DEC)	0.189	0.188	0.200	0.196	0.182	0.139	0.200	0.231	0.250	0.143	
REPEAT (% OF POP REG)	0.000	0.000	0.071	0.143	0.250	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.000	0.023	0.039	0.068	0.057	0.049	0.046	0.045	0.042	
REPEAT (% OF POP DEC)	0.042	0.058	0.062	0.059	0.045	0.000	0.000	0.000	0.000	0.000	

AVERAGE TOOTHPASTE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
C -----> X	5.	0.	1.	3.	0.	5.	0.	0.	0.	0.	0.	14.
X -----> O	4.	1.	1.	0.	0.	4.	0.	0.	0.	0.	0.	10.
X -----> X	0.	2.	0.	1.	0.	1.	0.	0.	0.	0.	0.	4.
O -----> O	11.	3.	6.	11.	2.	18.	1.	1.	0.	0.	0.	53.
O <----> O	4.	5.	1.	0.	1.	3.	0.	0.	0.	0.	0.	14.
TOTAL	24.	11.	9.	15.	3.	31.	1.	1.	0.	0.	0.	95.
TRIAL (COL/MCD REG)	0.250	0.000	0.125	0.214	0.000	0.192	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.250	0.179	0.167	0.180	0.170	0.177	0.175	0.173	0.173	0.173	0.173	
TRIAL (COL/MCD DEC)	0.173	0.148	0.170	0.178	0.161	0.179	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.556	0.000	0.500	1.000	0.000	0.556	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.556	0.500	0.500	0.600	0.600	0.583	0.583	0.583	0.583	0.583	0.583	
NET (COL/MCD DEC)	0.583	0.600	0.643	0.667	0.556	0.556	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	0.667	0.000	1.000	0.000	0.200	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.286	0.250	0.333	0.333	0.286	0.286	0.286	0.286	0.286	0.286	
REPEAT (COL/MCD DEC)	0.286	0.400	0.286	0.333	0.200	0.200	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	0.042	-0.091	0.000	0.200	0.000	0.032	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.042	0.000	0.000	0.051	0.048	0.043	0.043	0.042	0.042	0.042	0.042	
GAIN (% OF POP DEC)	0.042	0.042	0.067	0.078	0.028	0.030	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.208	0.000	0.111	0.200	0.000	0.161	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.208	0.143	0.136	0.153	0.145	0.151	0.149	0.147	0.147	0.147	0.147	
TRIAL (% OF POP DEC)	0.147	0.127	0.150	0.157	0.139	0.152	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.208	0.182	0.111	0.267	0.000	0.194	0.000	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.208	0.200	0.182	0.203	0.194	0.194	0.191	0.189	0.189	0.189	0.189	
NET (% OF POP DEC)	0.189	0.183	0.183	0.196	0.167	0.182	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.000	0.182	0.000	0.067	0.000	0.032	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.057	0.045	0.051	0.048	0.043	0.043	0.042	0.042	0.042	0.042	
REPEAT (% OF POP DEC)	0.042	0.056	0.033	0.039	0.028	0.030	0.000	0.000	0.000	0.000	0.000	

AVERAGE TOOTHPASTE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	0.	0.	0.	2.	4.	6.	2.	0.	0.	0.	0.	14.
X -----> O	0.	0.	1.	3.	2.	3.	1.	0.	0.	0.	0.	10.
X -----> X	0.	0.	0.	2.	1.	0.	0.	1.	0.	0.	0.	4.
O -----> O	0.	0.	2.	8.	10.	25.	5.	3.	0.	0.	0.	53.
O <----> O	0.	0.	3.	3.	4.	3.	1.	0.	0.	0.	0.	14.
TOTAL	0.	0.	6.	18.	21.	37.	9.	4.	0.	0.	0.	95.
TRIAL (COL/MCD REG)	0.000	0.000	0.000	0.154	0.222	0.176	0.250	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.000	0.000	0.000	0.111	0.167	0.171	0.179	0.173	0.173	0.173	0.173	
TRIAL (COL/MCD DEC)	0.173	0.173	0.173	0.184	0.190	0.178	0.182	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.131	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.000	0.000	0.000	0.400	0.667	0.667	0.667	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.000	0.000	0.000	0.333	0.500	0.571	0.583	0.583	0.583	0.583	0.583	
NET (COL/MCD DEC)	0.583	0.583	0.583	0.609	0.667	0.667	0.667	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.000	0.000	0.000	0.400	0.333	0.000	0.000	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.000	0.000	0.333	0.333	0.250	0.231	0.286	0.286	0.286	0.286	
REPEAT (COL/MCD DEC)	0.286	0.286	0.286	0.308	0.250	0.200	0.500	1.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	0.000	-0.167	-0.056	0.095	0.081	0.111	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.000	0.000	-0.167	-0.083	0.000	0.037	0.044	0.042	0.042	0.042	0.042	
GAIN (% OF POP DEC)	0.042	0.042	0.042	0.056	0.085	0.080	0.077	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.000	0.000	0.000	0.111	0.190	0.162	0.222	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.000	0.000	0.000	0.083	0.133	0.146	0.154	0.147	0.147	0.147	0.147	
TRIAL (% OF POP DEC)	0.147	0.147	0.147	0.157	0.169	0.160	0.154	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	1.024	0.366	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.000	0.000	0.000	0.222	0.238	0.162	0.222	0.250	0.000	0.000	0.000	
NET (% OF POP ASC)	0.000	0.000	0.000	0.167	0.200	0.183	0.187	0.189	0.189	0.189	0.189	
NET (% OF POP DEC)	0.189	0.189	0.189	0.202	0.197	0.180	0.231	0.250	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.330	-0.248	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.000	0.000	0.000	0.111	0.048	0.000	0.000	0.250	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.000	0.000	0.083	0.067	0.037	0.033	0.042	0.042	0.042	0.042	
REPEAT (% OF POP DEC)	0.042	0.042	0.042	0.045	0.028	0.020	0.077	0.250	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	-1.163	-1.131	0.000	0.000	0.000	0.000	0.000		

AVERAGE TOOTHPASTE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITH COUPONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
0 -----> X	9.	3.	1.	1.	0.	0.	0.	0.	0.	0.	14.
X -----> 0	6.	3.	0.	0.	0.	1.	0.	0.	0.	0.	10.
X -----> X	3.	0.	0.	0.	0.	1.	0.	0.	0.	0.	4.
0 -----> 0	29.	7.	8.	2.	1.	4.	1.	0.	0.	1.	53.
0 <----> 0	6.	6.	1.	0.	1.	0.	0.	0.	0.	0.	14.
TOTAL	53.	19.	10.	3.	2.	6.	1.	0.	0.	1.	95.
TRIAL (COL/MCD REG)	0.205	0.188	0.100	0.333	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.205	0.200	0.186	0.192	0.187	0.177	0.175	0.175	0.175	0.173	
TRIAL (COL/MCD DEC)	0.173	0.135	0.095	0.091	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.823	-1.093	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.600	0.500	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.600	0.571	0.591	0.609	0.609	0.583	0.583	0.583	0.583	0.583	
NET (COL/MCD DEC)	0.583	0.556	0.667	0.500	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.333	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.333	0.250	0.250	0.250	0.250	0.286	0.286	0.286	0.286	0.286	
REPEAT (COL/MCD DEC)	0.286	0.200	0.500	0.500	0.500	0.500	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.057	0.000	0.100	0.333	0.000	-0.167	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	0.057	0.042	0.049	0.059	0.057	0.043	0.043	0.043	0.043	0.042	
GAIN (% OF POP DEC)	0.042	0.024	0.043	0.000	-0.100	-0.125	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.170	0.158	0.100	0.333	0.000	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.170	0.167	0.159	0.165	0.161	0.151	0.149	0.149	0.149	0.147	
TRIAL (% OF POP DEC)	0.147	0.119	0.087	0.077	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	-0.693	-0.939	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.226	0.158	0.100	0.333	0.000	0.167	0.000	0.000	0.000	0.000	
NET (% OF POP ASC)	0.226	0.208	0.195	0.200	0.195	0.194	0.191	0.191	0.191	0.189	
NET (% OF POP DEC)	0.189	0.143	0.130	0.154	0.100	0.125	0.000	0.000	0.000	0.000	
T STATISTICS	-1.032	-0.830	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.057	0.000	0.000	0.000	0.000	0.167	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.057	0.042	0.037	0.035	0.034	0.043	0.043	0.043	0.043	0.042	
REPEAT (% OF POP DEC)	0.042	0.024	0.043	0.077	0.100	0.125	0.000	0.000	0.000	0.000	
T STATISTICS	-0.790	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

AVERAGE TOOTHPASTE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

SWITCHING TOWARD AND COUPON USAGE = 0
SWITCHING AWAY AND COUPON USAGE = 0
LOYAY TO TEST AND COUPON USAGE = 0
OTHER SWITCHING AND COUPON USAGE = 0
LOYAL TO OTHER AND COUPON USAGE = 0

NUMBER OF CATEGORY EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
0 -----> X	0.	1.	2.	2.	1.	2.	0.	1.	2.	3.	14.
X -----> 0	0.	2.	3.	3.	3.	2.	0.	1.	2.	4.	20.
X -----> X	0.	5.	2.	4.	6.	4.	1.	3.	0.	4.	29.
0 -----> 0	0.	27.	11.	24.	23.	22.	9.	11.	5.	31.	163.
0 <----> 0	0.	0.	7.	7.	12.	0.	0.	4.	6.	3.	39.
TOTAL	0.	35.	25.	40.	45.	30.	10.	20.	15.	45.	265.
TRIAL (COL/MCD REG)	0.000	0.036	0.100	0.061	0.028	0.083	0.000	0.063	0.154	0.081	
TRIAL (COL/MCD ASC)	0.000	0.036	0.063	0.062	0.051	0.057	0.053	0.054	0.061	0.065	
TRIAL (COL/MCD DEC)	0.065	0.065	0.069	0.065	0.067	0.081	0.080	0.091	0.100	0.081	
NET (COL/MCD REG)	0.000	0.333	0.400	0.400	0.250	0.500	0.000	0.500	0.500	0.429	
NET (COL/MCD ASC)	0.000	0.333	0.375	0.385	0.353	0.381	0.381	0.391	0.407	0.412	
NET (COL/MCD DEC)	0.412	0.412	0.419	0.423	0.429	0.471	0.462	0.462	0.455	0.429	
REPEAT (COL/MCD REG)	0.000	0.714	0.400	0.571	0.667	0.667	1.000	0.750	0.000	0.500	
REPEAT (COL/MCD ASC)	0.000	0.714	0.583	0.579	0.607	0.618	0.629	0.641	0.610	0.592	
REPEAT (COL/MCD DEC)	0.592	0.592	0.571	0.595	0.600	0.571	0.533	0.500	0.400	0.500	
GAIN (% OF POP REG)	0.000	-0.029	-0.040	-0.025	-0.044	0.000	0.000	0.000	0.000	-0.022	
GAIN (% OF POP ASC)	0.000	-0.029	-0.033	-0.030	-0.034	-0.029	-0.027	-0.024	-0.023	-0.023	
GAIN (% OF POP DEC)	-0.023	-0.023	-0.022	-0.020	-0.018	-0.008	-0.011	-0.012	-0.017	-0.022	
TRIAL (% OF POP REG)	0.000	0.029	0.080	0.050	0.022	0.067	0.000	0.050	0.133	0.067	
TRIAL (% OF POP ASC)	0.000	0.029	0.050	0.050	0.041	0.046	0.043	0.044	0.050	0.053	
TRIAL (% OF POP DEC)	0.053	0.053	0.057	0.054	0.055	0.067	0.067	0.075	0.083	0.067	
NET (% OF POP REG)	0.000	0.171	0.160	0.150	0.156	0.200	0.100	0.200	0.133	0.156	
NET (% OF POP ASC)	0.000	0.171	0.167	0.160	0.159	0.166	0.162	0.166	0.164	0.162	
NET (% OF POP DEC)	0.162	0.162	0.161	0.161	0.164	0.167	0.156	0.162	0.150	0.156	
REPEAT (% OF POP REG)	0.000	0.143	0.080	0.100	0.133	0.133	0.100	0.150	0.000	0.089	
REPEAT (% OF POP ASC)	0.000	0.143	0.117	0.110	0.117	0.120	0.119	0.122	0.114	0.109	
REPEAT (% OF POP DEC)	0.109	0.109	0.104	0.107	0.109	0.100	0.089	0.087	0.067	0.089	

AVERAGE TOOTHPASTE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

NUMBER OF BRAND EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
0 -----> X	6.	3.	3.	1.	0.	0.	0.	0.	1.	0.	14.
X -----> 0	7.	10.	2.	0.	1.	0.	0.	0.	0.	0.	20.
X -----> X	12.	10.	5.	2.	0.	0.	0.	0.	0.	0.	29.
0 -----> 0	89.	37.	19.	10.	2.	2.	2.	1.	0.	1.	163.
0 <----> 0	18.	15.	2.	2.	2.	0.	0.	0.	0.	0.	39.
TOTAL	132.	75.	31.	15.	5.	2.	2.	1.	1.	1.	265.
TRIAL (COL/MCD REG)	0.053	0.055	0.125	0.077	0.000	0.000	0.000	0.000	1.000	0.000	
TRIAL (COL/MCD ASC)	0.053	0.054	0.063	0.063	0.062	0.062	0.061	0.061	0.065	0.065	
TRIAL (COL/MCD DEC)	0.065	0.078	0.104	0.083	0.091	0.143	0.200	0.333	0.500	0.000	
T STATISTICS	0.733	1.256	0.391	0.000	0.000	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.462	0.231	0.600	1.000	0.000	0.000	0.000	0.000	1.000	0.000	
NET (COL/MCD ASC)	0.462	0.346	0.387	0.406	0.394	0.394	0.394	0.394	0.412	0.412	
NET (COL/MCD DEC)	0.412	0.381	0.625	0.667	0.500	1.000	1.000	1.000	1.000	0.000	
REPEAT (COL/MCD REG)	0.632	0.500	0.714	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.632	0.564	0.587	0.604	0.592	0.592	0.592	0.592	0.592	0.592	
REPEAT (COL/MCD DEC)	0.592	0.567	0.700	0.667	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.008	-0.093	0.032	0.067	-0.200	0.000	0.000	0.000	1.000	0.000	
GAIN (% OF POP ASC)	-0.008	-0.039	-0.029	-0.024	-0.027	-0.027	-0.027	-0.027	-0.023	-0.023	
GAIN (% OF POP DEC)	-0.023	-0.038	0.034	0.037	0.000	0.143	0.200	0.333	0.500	0.000	
TRIAL (% OF POP REG)	0.045	0.040	0.097	0.067	0.000	0.000	0.000	0.000	1.000	0.000	
TRIAL (% OF POP ASC)	0.045	0.043	0.050	0.051	0.050	0.050	0.050	0.049	0.053	0.053	
TRIAL (% OF POP DEC)	0.053	0.060	0.086	0.074	0.083	0.143	0.200	0.333	0.500	0.000	
T STATISTICS	0.535	1.286	0.521	0.000	0.000	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.136	0.173	0.258	0.200	0.000	0.000	0.000	0.000	1.000	0.000	
NET (% OF POP ASC)	0.136	0.150	0.164	0.166	0.163	0.162	0.160	0.160	0.163	0.162	
NET (% OF POP DEC)	0.162	0.188	0.207	0.148	0.083	0.143	0.200	0.333	0.500	0.000	
T STATISTICS	1.139	1.043	-0.210	0.000	0.000	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.091	0.133	0.161	0.133	0.000	0.000	0.000	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.091	0.106	0.113	0.115	0.112	0.112	0.111	0.110	0.110	0.109	
REPEAT (% OF POP DEC)	0.109	0.128	0.121	0.074	0.000	0.000	0.000	0.000	0.000	0.000	
T STATISTICS	0.962	0.311	-0.621	0.000	0.000	0.000	0.000	0.000	0.000		

AVERAGE TOOTHPASTE 7-DAY WINDOW   60% FREQ   ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

NUMBER OF COMPETITION EXPOSURES

	0	1	2	3	4	5	6	7	8	9+	
O -----> X	0.	3.	1.	3.	1.	0.	2.	1.	0.	3.	14.
X -----> O	1.	2.	5.	1.	3.	1.	2.	0.	2.	3.	20.
X -----> X	2.	4.	4.	6.	6.	1.	1.	1.	1.	3.	29.
O -----> O	4.	29.	21.	27.	22.	15.	8.	9.	5.	23.	163.
U <----> O	0.	2.	11.	8.	7.	1.	1.	5.	1.	3.	39.
TOTAL	7.	40.	42.	45.	39.	18.	14.	16.	9.	35.	265.
TRIAL (COL/MCD REG)	0.000	0.088	0.030	0.079	0.033	0.000	0.182	0.067	0.000	0.103	
TRIAL (CCL/MCD ASC)	0.000	0.079	0.056	0.064	0.058	0.052	0.060	0.061	0.059	0.065	
TRIAL (COL/MCD DEC)	0.065	0.066	0.062	0.069	0.065	0.078	0.098	0.080	0.086	0.103	
NET (COL/MCD REG)	C.000	0.600	0.167	0.750	0.250	0.000	0.500	1.000	0.000	0.500	
NET (COL/MCD ASC)	0.000	0.500	0.333	0.438	0.400	0.381	0.400	0.423	0.393	0.412	
NET (COL/MCD DEC)	0.412	0.424	0.393	0.455	0.389	0.429	0.462	0.444	0.375	0.500	
REPEAT (COL/MCD REG)	0.667	0.667	0.444	0.857	0.667	0.500	0.333	1.000	0.333	0.500	
REPEAT (COL/MCD ASC)	0.667	0.667	0.556	0.640	0.647	0.639	0.615	0.625	0.605	0.592	
REPEAT (COL/MCD DEC)	0.592	0.587	0.575	0.613	0.542	0.467	0.462	0.500	0.444	0.500	
GAIN (% OF POP REG)	-0.143	0.025	-0.095	0.044	-0.051	-0.056	0.000	0.063	-0.222	0.000	
GAIN (% OF POP ASC)	-0.143	C.000	-0.045	-0.015	-0.023	-0.026	-0.024	-0.018	-0.026	-0.023	
GAIN (% OF POP DEC)	-0.023	-0.019	-0.028	-0.011	-0.031	-0.022	-0.014	-0.017	-0.045	0.000	
TRIAL (% OF POP REG)	0.000	0.075	0.024	0.067	0.026	0.000	0.143	0.063	0.000	0.086	
TRIAL (% CF POP ASC)	0.000	0.C64	0.045	0.052	0.046	0.042	0.049	0.050	0.048	0.053	
TRIAL (% OF POP DEC)	0.053	0.054	0.050	0.057	0.053	0.065	0.081	0.067	0.068	0.086	
NET (% OF POP REG)	0.286	0.175	0.119	0.209	0.179	0.056	0.214	0.125	0.111	0.171	
NET (% OF POP ASC)	0.286	0.191	0.157	0.172	0.173	0.162	0.166	0.163	0.161	0.162	
NET (% OF POP DEC)	0.162	0.159	0.156	0.165	0.153	0.141	0.162	0.150	0.159	0.171	
REPEAT (% OF POP REG)	0.286	0.100	0.095	0.133	0.154	0.056	0.071	0.063	0.111	0.086	
REPEAT (% OF POP ASC)	0.286	0.128	0.112	0.119	0.127	0.120	0.117	0.113	0.113	0.109	
REPEAT (% OF POP DEC)	0.109	0.105	0.106	0.108	0.099	0.076	0.081	0.083	0.091	0.086	

AVERAGE TOOTHPASTE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

2*(BRAND EXPOSURES) - CATEGORY EXPOSURES

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	3.	3.	2.	1.	2.	2.	1.	0.	0.	0.	0.	14.
X -----> O	6.	4.	1.	3.	4.	1.	1.	0.	0.	0.	0.	20.
X -----> X	6.	3.	6.	3.	7.	2.	1.	1.	0.	0.	0.	29.
O -----> O	53.	14.	22.	19.	36.	9.	7.	1.	0.	0.	2.	163.
O <----> O	10.	5.	3.	11.	5.	5.	0.	0.	0.	0.	0.	39.
TOTAL	78.	29.	34.	37.	54.	19.	10.	2.	0.	0.	2.	265.
TRIAL (COL/MCD REG)	0.045	0.136	0.074	0.032	0.047	0.125	0.125	0.000	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.045	0.068	0.070	0.062	0.058	0.063	0.066	0.065	0.065	0.065	0.065	
TRIAL (COL/MCD DEC)	0.065	0.073	0.063	0.059	0.071	0.111	0.091	0.000	0.000	0.000	0.000	
NET (COL/MCD REG)	0.333	0.429	0.667	0.250	0.333	0.667	0.500	0.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.333	0.375	0.421	0.391	0.379	0.406	0.412	0.412	0.412	0.412	0.412	
NET (COL/MCD DEC)	0.412	0.440	0.444	0.400	0.455	0.600	0.500	0.000	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.500	0.429	0.857	0.500	0.636	0.667	0.500	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.500	0.474	0.577	0.563	0.581	0.587	0.583	0.592	0.592	0.592	0.592	
REPEAT (COL/MCD DEC)	0.592	0.622	0.667	0.609	0.647	0.667	0.667	1.000	0.000	0.000	0.000	
GAIN (% OF POP REG)	-0.038	-0.034	0.029	-0.054	-0.037	0.053	0.000	0.000	0.000	0.000	0.000	
GAIN (% OF POP ASC)	-0.038	-0.037	-0.021	-0.028	-0.030	-0.024	-0.023	-0.023	-0.023	-0.023	-0.023	
GAIN (% OF POP DEC)	-0.023	-0.016	-0.013	-0.024	-0.011	0.030	0.000	0.000	0.000	0.000	0.000	
TRIAL (% OF POP REG)	0.038	0.103	0.059	0.027	0.037	0.105	0.100	0.000	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.038	0.056	0.057	0.051	0.047	0.052	0.054	0.053	0.053	0.053	0.053	
TRIAL (% OF POP DEC)	0.053	0.059	0.051	0.048	0.057	0.091	0.071	0.000	0.000	0.000	0.000	
NET (% OF POP REG)	0.115	0.207	0.235	0.108	0.167	0.211	0.200	0.500	0.000	0.000	0.000	
NET (% OF POP ASC)	0.115	0.140	0.163	0.152	0.155	0.159	0.161	0.163	0.163	0.163	0.162	
NET (% OF POP DEC)	0.162	0.182	0.177	0.161	0.184	0.212	0.214	0.250	0.000	0.000	0.000	
REPEAT (% OF POP REG)	0.077	0.103	0.176	0.081	0.130	0.105	0.100	0.500	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.077	0.084	0.106	0.101	0.108	0.108	0.107	0.110	0.110	0.110	0.109	
REPEAT (% OF POP DEC)	0.109	0.123	0.127	0.113	0.126	0.121	0.143	0.250	0.000	0.000	0.000	

AVERAGE TOOTHPASTE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

(BRAND EXPOSURES) - (MAX COMPETITOR)

	-5	-4	-3	-2	-1	0	1	2	3	4	5+	
O -----> X	1.	1.	0.	3.	3.	2.	2.	1.	0.	1.	0.	14.
X -----> O	1.	2.	0.	5.	4.	6.	2.	0.	0.	0.	0.	20.
X -----> X	0.	1.	1.	6.	8.	9.	3.	1.	0.	0.	0.	29.
O -----> O	12.	1.	17.	36.	30.	33.	21.	9.	0.	1.	3.	163.
O <----> O	2.	0.	3.	8.	7.	9.	8.	2.	0.	0.	0.	39.
TOTAL	16.	5.	21.	58.	52.	59.	36.	13.	0.	2.	3.	265.
TRIAL (COL/MCD REG)	0.067	0.500	0.000	0.064	0.075	0.045	0.065	0.083	0.000	0.500	0.000	
TRIAL (COL/MCD ASC)	0.067	0.118	0.054	0.060	0.065	0.060	0.060	0.062	0.062	0.066	0.065	
TRIAL (COL/MCD DEC)	0.065	0.065	0.060	0.067	0.068	0.065	0.083	0.118	0.200	0.200	0.000	
T STATISTICS	0.000	0.000	0.292	0.251	0.021	0.577	0.000	0.000	0.000	0.000		
NET (COL/MCD REG)	0.500	0.333	0.000	0.375	0.429	0.250	0.500	1.000	0.000	1.000	0.000	
NET (COL/MCD ASC)	0.500	0.400	0.400	0.385	0.400	0.357	0.375	0.394	0.394	0.412	0.412	
NET (COL/MCD DEC)	0.412	0.406	0.414	0.414	0.429	0.429	0.667	1.000	1.000	1.000	0.000	
REPEAT (COL/MCD REG)	0.000	0.333	1.000	0.545	0.667	0.600	0.600	1.000	0.000	0.000	0.000	
REPEAT (COL/MCD ASC)	0.000	0.250	0.400	0.500	0.571	0.581	0.583	0.592	0.592	0.592	0.592	
REPEAT (COL/MCD DEC)	0.592	0.604	0.622	0.614	0.636	0.619	0.667	1.000	0.000	0.000	0.000	
T STATISTICS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	0.000	-0.200	0.000	-0.034	-0.019	-0.068	0.000	0.077	0.000	0.500	0.000	
GAIN (% OF POP ASC)	0.000	-0.048	-0.024	-0.030	-0.026	-0.038	-0.032	-0.027	-0.027	-0.023	-0.023	
GAIN (% OF POP DEC)	-0.023	-0.024	-0.020	-0.022	-0.018	-0.018	0.037	0.111	0.200	0.200	0.000	
TRIAL (% OF POP REG)	0.063	0.200	0.000	0.052	0.058	0.034	0.056	0.077	0.000	0.500	0.000	
TRIAL (% OF POP ASC)	0.063	0.095	0.048	0.050	0.053	0.047	0.049	0.050	0.050	0.053	0.053	
TRIAL (% OF POP DEC)	0.053	0.052	0.049	0.054	0.055	0.053	0.074	0.111	0.200	0.200	0.000	
T STATISTICS	0.000	-0.905	0.164	0.160	0.017	0.771	0.000	0.000	0.000	0.000		
NET (% OF POP REG)	0.063	0.400	0.048	0.155	0.212	0.186	0.139	0.154	0.000	0.500	0.000	
NET (% OF POP ASC)	0.063	0.143	0.095	0.130	0.158	0.166	0.162	0.162	0.162	0.164	0.162	
NET (% OF POP DEC)	0.162	0.169	0.164	0.175	0.182	0.168	0.148	0.167	0.200	0.200	0.000	
T STATISTICS	0.000	0.251	1.284	1.107	0.223	-0.310	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.000	0.200	0.048	0.103	0.154	0.153	0.083	0.077	0.000	0.000	0.000	
REPEAT (% OF POP ASC)	0.000	0.048	0.048	0.080	0.105	0.118	0.113	0.112	0.112	0.111	0.109	
REPEAT (% OF POP DEC)	0.109	0.116	0.115	0.121	0.127	0.115	0.074	0.056	0.000	0.000	0.000	
T STATISTICS	0.000	0.945	1.398	1.193	0.251	-0.918	0.000	0.000	0.000	0.000		

AVERAGE TOOTHPASTE 7-DAY WINDOW 60% FREQ ENTIRE DAY
ALL TRANSACTIONS WITHOUT COUPONS

SHARE OF EXPOSURES

	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	
0 -----> X	7.	0.	2.	0.	2.	2.	1.	0.	0.	0.	14.
X -----> 0	9.	2.	3.	4.	0.	1.	0.	0.	0.	1.	20.
X -----> X	12.	4.	6.	2.	1.	2.	0.	0.	0.	2.	29.
0 -----> 0	92.	12.	22.	11.	7.	10.	3.	1.	1.	4.	163.
0 <----> 0	18.	4.	6.	5.	1.	5.	0.	0.	0.	0.	39.
TOTAL	138.	22.	39.	22.	11.	20.	4.	1.	1.	7.	265.
TRIAL (COL/MCD REG)	0.060	0.000	0.067	0.000	0.200	0.118	0.250	0.000	0.000	0.000	
TRIAL (COL/MCD ASC)	0.060	0.053	0.055	0.050	0.058	0.063	0.067	0.066	0.066	0.065	
TRIAL (COL/MCD DEC)	0.065	0.C71	3.084	0.094	0.135	0.111	0.100	0.000	0.000	0.000	
T STATISTICS	0.324	0.921	1.005	1.909	1.045	0.000	0.000	0.000	0.000		
NET (CCL/MCD REG)	0.438	0.000	0.400	0.000	1.000	0.667	1.000	0.000	0.000	0.000	
NET (COL/MCD ASC)	0.438	0.389	0.391	0.333	0.379	0.406	0.424	0.424	0.424	0.412	
NET (CCL/MCD DEC)	0.412	0.389	0.438	0.455	0.714	0.600	0.500	0.000	0.000	0.000	
REPEAT (COL/MCD REG)	0.571	0.667	0.667	0.333	1.000	0.667	0.000	0.000	0.000	0.667	
REPEAT (COL/MCD ASC)	0.571	0.593	0.611	0.571	0.581	0.587	0.587	0.587	0.587	0.592	
REPEAT (COL/MCD DEC)	0.592	0.607	0.591	0.538	0.714	0.667	0.667	0.667	0.667	0.667	
T STATISTICS	0.252	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
GAIN (% OF POP REG)	-0.014	-0.091	-0.026	-0.182	0.182	0.050	0.250	0.000	0.000	-0.143	
GAIN (% OF POP ASC)	-0.014	-0.025	-0.025	-0.041	-0.030	-0.024	-0.020	-0.019	-0.019	-0.023	
GAIN (% OF POP DEC)	-0.023	-0.031	-0.019	-0.015	0.068	0.030	0.000	-0.111	-0.125	-0.143	
TRIAL (% OF POP REG)	0.051	0.000	0.051	0.000	0.182	0.100	0.250	0.000	0.000	0.000	
TRIAL (% OF POP ASC)	0.051	0.044	0.045	0.041	0.047	0.052	0.055	0.054	0.054	0.053	
TRIAL (% OF POP DEC)	0.053	0.055	0.067	0.076	0.114	0.091	0.077	0.000	0.000	0.000	
T STATISTICS	0.160	0.816	0.961	1.974	1.045	0.000	0.000	0.000	0.0C0		
NET (% OF POP REG)	0.138	0.182	0.205	0.091	0.273	0.200	0.250	0.000	0.000	0.286	
NET (% OF POP ASC)	0.138	0.144	0.156	0.149	0.155	0.159	0.160	0.160	0.159	0.162	
NET (% OF POP DEC)	0.162	0.189	0.190	0.182	0.227	0.212	0.231	0.222	0.250	0.286	
T STATISTICS	1.131	1.009	0.497	1.281	0.830	0.000	0.000	0.000	0.000		
REPEAT (% OF POP REG)	0.087	0.182	0.154	0.091	0.091	0.100	0.000	0.000	0.000	0.286	
REPEAT (% OF POP ASC)	0.087	0.100	0.111	0.109	0.108	0.107	0.105	0.105	0.105	0.109	
REPEAT (% OF POP DEC)	0.109	0.134	0.124	0.106	0.114	0.121	0.154	0.222	0.250	0.286	
T STATISTICS	1.222	0.607	-0.101	0.098	0.232	0.000	0.000	0.000	0.000		